

THRILL-PACKED TALES OF FUTURE WORLDS!

VOLUME 24
NUMBER 11

AMAZING STORIES

AMAZINGTM STORIES

NOVEMBER 25¢



**ALL HEROES
ARE HATED!**

By MILTON LESSER

DEATH WAS CALLED THE MAD DOG OF THE UNIVERSE

NOVEMBER
1950

THRILL

to the strange
and terrifying!

CHILL

to spine-tingling tales by
the world's greatest
writers of fantasy . . .



Here are stories so fascinating you'll be transported out of this world — out of time and space . . . Interpretations of the "other side" so eerie — so shocking, you'll gasp in excitement.

Read

fantastic

ADVENTURES

Answer the challenge to explore the unknown. Pass through the forbidden portals of the eternal mysteries with the most imaginative minds in the world!

**EVERY STORY A FANTASY CLASSIC
AT YOUR NEWSSTAND EVERY MONTH**

WIN FAME AND SOME FORTUNE!

Win FREE \$50, \$25, \$15

Science Fiction Library

NOW — In this Interplanetary Forms Nationwide Contest

Don't miss this opportunity to break into the Science Fiction field NOW!

HERE is the biggest and greatest thing that ever hit YOU, the science fiction audience. Be one of the lucky winners of these sensational prizes of \$50, \$25, and \$15 science fiction libraries and medal awards. Costs nothing to enter and you can really reap in a jackpot.

Simple — Easy to Enter and Win!

Draw or describe your idea of the people or life forms to be found on any of the nine planets. Make your descriptions complete—include colors, substance, height, weight, shape, features, habits—everything you can think of. Explain why you associate your planetary being with the planet you choose. Imagination will win this contest! Credit will be given for use of the data, listed below, in your explanation. There is no limit to the number of entries any one person may send in. Contest closes Midnight, December 31, 1950.

MERLIN PRESS, INC., sponsor of this amazing contest, in cooperation with BRENTANO'S BOOK STORES, will award the winners, in addition to their prizes, photographs of their ideas as they are used by a famous artist in BRENTANO'S windows in cities throughout the United States. Millions of people will see your creations and learn your name.

Send Entries NOW to Brentano's • Dept. A • 586—5th Avenue • New York 19, N. Y.

PRIZES AND AWARDS

First Prize—\$50 S. F. L.

Second Prize—\$25 S. F. L.

Third Prize—\$15 S. F. L.

Medals and Certificates of Award to Honorable Mention Winners.

PLANETARY DATA:

- (1) Equal weight of one pound on Earth.
- (2) Temperature.
- (3) Most common substance.
- (4) Atmosphere.
- (5) Number of Moons.
- (6) Length of planetary year.
- (7) Albedo.

FOR SOURCE MATERIAL

Read "From Off This World," price \$2.95, and "My Best Science Fiction Story," price \$3.95. Obtain your copy from BRENTANO'S, 586—5th Avenue, New York City; 27 Lewis Street, Hartford, Conn.; 1726 Chestnut Street, Philadelphia, Pa.; 1322 F Street N.W. 4, Washington, D.C.; 3901 Mount Vernon Avenue, Alexandria, Vir-

ginia; 134 South Wayne Street, Arlington, Virginia; 8644 Georgia Avenue, Silver Spring, Maryland; BRENTANO'S BOOK STORE, City of Paris Dept. Store, San Francisco, California. Or order direct from Publisher. All entries become the property of Merlin Press, Inc. and BRENTANO'S.

**DESTINATION MOON—A magnificent motion picture in color.
See it at your local theatre.**



AMAZING STORIES

NOVEMBER 1950

Trade Mark Registered U S
Patent Office No. 378407
and 511026

WILLIAM B. ZIFF

Chairman of the Board
and Publisher

B. G. DAVIS
President

Vice-Presidents:

MICHAEL H. FROELICH
Dir. Eastern Division

H. J. MORGANROTH
Production Director

LYNN PHILLIPS, JR.
Advertising Director

H. G. STRONG
Circulation Director

Secretary-Treasurer
A. T. PULLEN

Art Director
HERMAN R. BOLLIN

Editor
HOWARD BROWNE

Managing Editor
WILLIAM L. HAMLING

Associate Editor
L. E. SHAFFER

Art Editor
BRAD PENDLETON



All Features Complete

THE OBSERVATORY

By The Editor 6

LUNAR PRIORITY CLAIM 7

By Carter T. Wainwright 7

STELLAR WALKIE-TALKIE 42

By H. R. Stanton 42

AROUND SHE GOES 43

By Milton Matthew 43

THE DUPLICATE BALANCE 43

By Walter Lathrop 43

WAVE PLOTTER! 58

By Sandy Miller 58

THE STANDING ANTHROPOID 59

By Leslie Phelps 59

THE SLEEPMAKER 59

By Ramsey Sinclair 59

HYDROPONIC HEAVEN 71

By Charles Recur 71

ARTIFICIAL UNIVERSE 71

By June Luria 71

WHAT PRICE, SCIENCE? 99

By John Weston 99

CYLINDERS OF DEATH 107

By William Karney 107

STEREO ROBOT 116

By A. Morris 116

BRAIN-BLOCK BUILDERS 116

By Jon Barry 116

THE GRIM NOTE 117

By A. T. Kedzie 117

THE ATOMIC RAINMAKER 148

By L. A. Burt 148

BUOYANCY PROBLEM 149

By Lee Owens 149

THE CLUB HOUSE 150

By Rog Phillips 150

THE READER'S FORUM 154

By The Readers 154

FACTS OF THE FUTURE 155

By Lynn Standish 155

Published monthly by ZIFF-DAVIS PUBLISHING COMPANY at 155 North Wabash Ave., Chicago 2, Illinois. Postage paid at Chicago, Illinois, and New York, N. Y. Mailed as second class matter June 3, 1941, at the Post Office, Chicago, Illinois, under the Act of March 3, 1879. Additional second class entry, Holyoke, Massachusetts. Subscription: in U. S., Canada, Mexico, South and Central America and U. S. Possessions \$2.50 for 12 issues; all other foreign countries \$5.00 for 12 issues. Subscribers should allow at least two weeks for change of address. All communications concerning subscriptions should be addressed to the Director of Circulation, Ziff-Davis Publishing Company, 155 North Wabash Ave., Chicago 2, Ill.

All STORIES Complete

ALL HEROES ARE HATED! (Novel—20,000) By Milton Lesser 8

Illustrated by Robert Gibson Jones

Hated, hunted down like animals, the starmen knew the depths of despair and degradation. Yet when hope was offered, their own leader refused to listen!

WHO'S THAT KNOCKING AT MY DOOR? (Short—8,000) By S. M. Tenneshaw 44

Illustrated by Enoch Sharp

"Come out," the little old man seid; "come out and breathe the fresh air." But there wes one important thing wrong with his invitation: there wasn't eny air!

THE WORLD OF RELUCTANT VIRGINS (Short—6,000) .. By Robert Moore Williams 60

Illustrated by Edmond B. Swiatek

By reaching the moon, Holden found the secret of eternal life. But in doing so he discovered a basic truth: you pay a tremendous price when you thwart Nature!

BROTHERS UNDER THE SKIN (Short novel—18,000) By Gerald Vence 72

Illustrated by Leo Ramon Summers

Not until Archer carried out a plan to steal another man's wife did he learn that not all the monsters on Mars were synthetic. Take Laura, for example ...

THE DAY THE BOMB FELL (Short—3,300) By Leslie A. Croutch 100

Illustrated by Leo Ramon Summers

Johnny couldn't understand why adults did such crazy things. Like henging around the radio all day ... or starting summer vacation early by blowing up the school!

ONE OF OUR PLANETS IS MISSING! (Short—3,800) ... By Mack Reynolds 108

Illustrated by Julian S. Krupa

Captain Maddigan knew perfectly well the information he brought back from space wouldn't be accepted. So he lined up some positive proof—and lived to regret it!

THE DEVIL IN A BOX (Short novel—18,000) By Alexander Blede 118

Illustrated by J. Allen St. John

They knew the box held a fortune; the fight they went through to get it proved es much. But not until it was opened did they learn how deadly treasure can be!

Cover painting by Robert Gibson Jones, suggested by
a scene from "All Heroes are Hated!"

Copyright, 1958, ZIFF-DAVIS PUBLISHING COMPANY

Member of the Audit Bureau of Circulations

We do not accept responsibility for the return of unsolicited manuscripts or artwork. To facilitate handling, the author should enclose a self addressed envelope with the mailing postage attached, and artists should enclose or forward return postage. Accepted material is subject to whatever revision is necessary to meet requirements. Payment covers all authors' contributors' and contestants' magazine rights in the U.S.A. and all other countries in the article and/or illustrations and for publicity and promotion in connection therewith and will be made at our current rates upon acceptance. All photos and drawings will be considered as part of material purchased. The names of all characters that are used in short stories, serials and semi-fiction articles that deal with persons or fictitious. Use a name that is the same as that of any living person is coincidental.

The OBSERVATORY

..... by the Editor

A FEW days ago, one of the better-known science-fiction writers stopped in at our office around lunch time. Seems he was in town between trains on his way to New York to look over the markets there and maybe butter up an editor or two. His reason for dropping in on us, he explained, was that he's spent years trying to crack this magazine, and only lately was he getting checks instead of rejections.

WE TOLD him the reason was probably simple: he was a better writer today than he used to be. That got a cold glare out of him and he changed the subject—but fast!

THEN THE conversation got around to the people who read science fiction. Our visitor had a few observations about readers that struck us as the rankest kind of heresy. To begin with, he stated, the more or less professional science-fiction "fan" is very much in the minority compared with the general over-all readership. The bulk of such a magazine's audience never (or very seldom) writes letters of praise or condemnation to the editor, belongs to no fan clubs, attends none of the conventions and reads the stories for nothing more than entertainment. If there are holes in the author's scientific theories in the story, the average reader doesn't know it, and he would be frankly bored if you tried to tell him about it!

AT THIS point the discussion stopped long enough for us to revive Bill Hamling. Bill, as managing editor of *Amazing Stories* and a science-fiction fan of long standing, had started to turn a violent shade of green while our guest was voicing these remarks. A glass of water, or something, did the job, and Bill, his voice restored, had a few thousand well-chosen words to say in rebuttal. Most of those words were the kind we can't use here—but the upshot of it all was that our visitor was not only wrong; he was as crazy as three waltzing mice!

PRESSED for details on why our writing friend was wrong, Bill said flatly that the majority of science-fiction readers read such stories because (1) they are vitally interested in science, (2) they

want fiction that has a *basis* in fact, which is why out-and-out nonsense science would not go over with them at all and (3) all readers of science fiction are actually fans whether they do or don't write letters, belong to fan clubs and attend sf conventions. Bill went on to say, very heatedly, that the primary purpose of science fiction, like any other type of fiction, is to entertain, but that in its case entertainment alone is not enough. Everybody, said Bill, would like to be able to look into the future and find out what kind of world and life is in store for him. Science fiction helps to gratify that wish, plus giving the reader the vicarious thrills of actually being a part of the future. That is why the "science" in science fiction *must*, in a broad sense at least, have some foundation in the science of today.

A BOUT this time we began to eye William Lawrence Hamling with more respect than usual—and so, evidently, did our badly misinformed guest, for he did a quick job of changing the subject.

BUT AFTER he'd left, your editor got to thinking about what had been said—and to wondering exactly how much truth was in the writer's statements as well as in Bill Hamling's. So, we'd sort of like to hear what readers of sf have to say on the subject. Particularly those readers who heretofore haven't bothered to write letters to the editor and who don't belong to fan clubs or attend science fiction conventions. Address your letters to "The Reader's Forum," *Amazing Stories*, 185 North Wabash Avenue, Chicago 1, Ill. —HB



"Cig'ret, Yanks—Cig'ret?"

LUNAR PRIORITY CLAIM

By CARTER T. WAINWRIGHT

THE WHOLE chain of events which culminated in American domination of the Moon began rather dramatically at that secret session of Congress addressed by the outwardly cool, inwardly excited Major Anderson of Intelligence. His simple bombshell was: "Gentlemen: the Sovs have assigned an unlimited budget and highest personnel priority to the construction of a Lunar rocket—with what intentions you can readily judge. General Myers has authorized me to ask for the equivalent..."

The resultant landing on the Moon two years later, at the same time of an American and a Sov rocket, are both well known. Their mutual destruction because of "faulty fuel tanks", is also common knowledge. The second American rocket and its successful return with full claim on Lunar "soil" is common knowledge too. With the present downfall of the Sov government by internal revolution it is once more safe to speak frankly of the first landings and to clarify and amplify the little known events that occurred on Luna's bleak face. The story is writ in tragedy, but the kind of tragedy of which heroes are made.

It won't be very long before Steve Wrighton and Robert Manning will be enshrined forever in the Heroes' Hall in Washington.

The log of the *Pioneer*, actually a carefully kept diary reveals accurately exactly what happened on that trip and how both men met with calm courage, the certain doom they knew as theirs, the minute the Sov projectile destroyed their rocket and left them to die slowly in the barren airlessness...

The first indication that the Sovs were in space too came at forty thousand miles from Luna's surface. Wrighton, who was monitoring the radar on twenty centimeters caught the last few words of the Terran transmitter in New Mexico before the beam faded into silence. He swept the dial through its narrow range and to his astonishment picked up his knowledge of the Sov rocket. It too was signing off communications with Novorisk, its base.

Wrighton made a friendly overture,—and was repulsed by the Sov pilot with strong language. Marveling at the amazing indoctrination the Sovs had achieved, Wrighton and Manning concentrated on their landing a few hours later. They succeeded contrary to subsequent reports to the American people, succeeded perfectly and would have taken off a short time later save for the fact that within minutes after their landing, the Sovs came down with admirable control also.

In accordance with instructions Manning

and Wrighton had planted the rather grotesque but never the less proud metal American flag, scattered the white metallic marking powder, fired the oxygen magnesium-flare, and buried the document-carrying cylinder.

The Sovs, a mere twenty miles away, witnessed the primary claim in silent chagrin, in spite of Wrighton's attempt at communication with them over the short-wave. What motivated the Sovs we'll never know, though it is likely that they had not gotten official orders for their next act. Regardless of that, Wrighton and Manning who were a mere eighty feet from their ship at the time, saw a flash from the Sovs. An instant later the flat trajectory in light Lunar gravitation of some sort of a projectile—the log says "suspected seventy-five-recoilless"—knifed through emptiness. In terror Wrighton and Manning saw the rocket tip from its fins, a gaping hole in its metallic sides. Miraculously the fuels did not ignite.

Praying for time, as coolly and methodically as soldiers contemplating an attack, the two Americans entered the smashed rocket and came out with their only weapon, a simple bazooka-type rocket launcher originally intended for throwing a cable or line over a crevice.

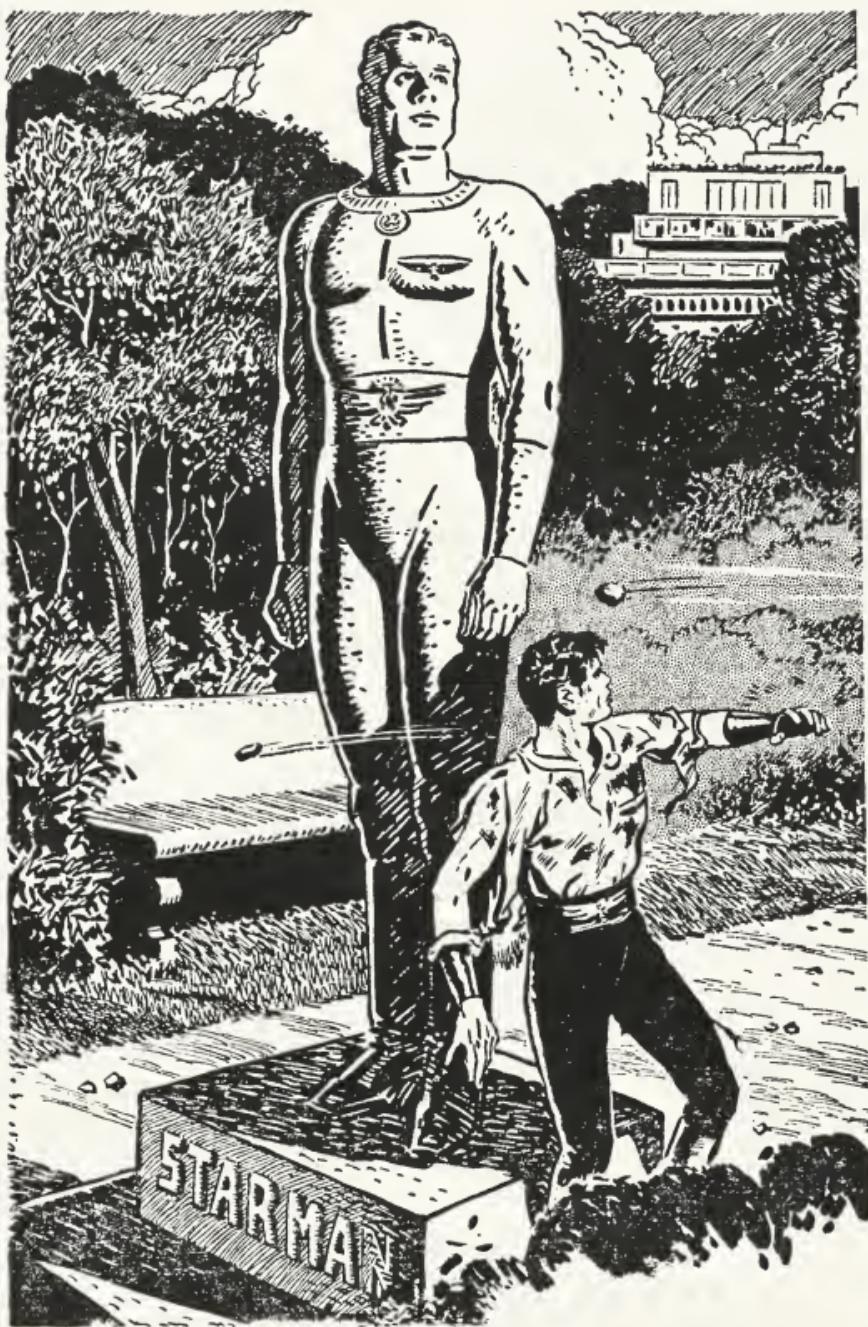
They crossed the pumiced "luna-terrain", two space-suited figures gasping with cold—the heaters weren't strong enough—and saw the Sov rocket doing almost exactly what they expected. Flame was issued from the underjets and the rocket was preparing to launch itself. Sov markers studded the surrounding ground.

Hurriedly they took aim and after the fourth shot, they had success. The Sov-rocket vanished in a coruscant flare of intense heat as a lucky hit penetrated the highly unstable fuel tanks!

With their remaining strength the two men went back to their own rocket after destroying the many evidences of Sov markings, to sit grimly by while they awaited death. It was not long in coming. Manning shot himself and Wrighton followed suit a short while later as the paroxysms of horrifying asphyxiation set in. But the log made it quite clear that they knew exactly what they were doing.

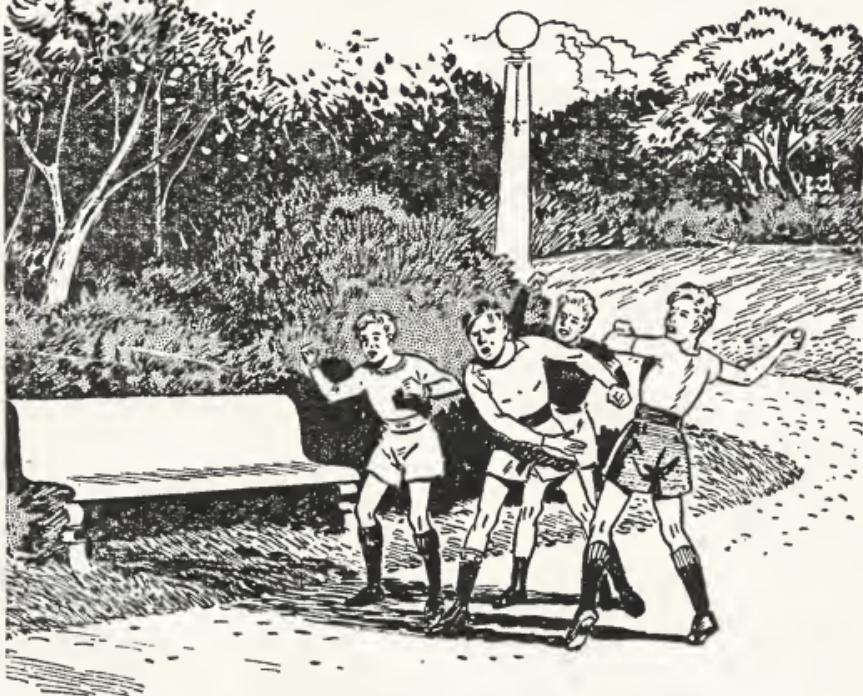
The later American rockets saw the perfectly preserved tableau. Photographs have recently been released, though security regulations at that time claimed that both rockets had been destroyed in faulty landings—fuel tanks—it said.

The last words recorded in the log are quite simple, but they tell more than oratory or rhetoric could possibly—"...my love to Maria—and God bless her..."



Kenton managed to avoid being struck, but the taunts and insults hit him hard

ALL HEROES ARE HATED!



By Milton Lesser

Earth had a strange way of rewarding its heroes: put a brand on their heads and hunt them down like a pack of mangy dogs!

KENTON knew all along that he should not have come to the city. Morning was coming and the people would see him.

It was an old city, not one of those built by the returned starmen, and its people would hate him.

Kenton entered the square but still he saw no one. For a long while he stood at the base of the great bronze statue of the man who had first broken through into space, so many hundreds of years ago. The pre-dawn dusk still hung low over the city and he could not see the face of the statue, but he had seen such statues before and he knew the man's eyes were wide and he was looking up at the sky. It was the pose of a supplicant, a pose Kenton had assumed many times himself. It was meaningless: there was the Sanction and the stars could never be anything more than a speckled backdrop for Kenton's dreams.

Then Kenton saw the sign. It was fastened about one of the massive legs of the figure atop the pedestal, too high for Kenton to reach. It said:

THIS STATUE IS CONDEMNED
DEMOLITION DATE,
AUGUST 7, 2914

August 7th—that was today.

Something inside Kenton went numb. There was nothing in the city for him, nothing to call him back there in the face of all the hatred, except the statue. And now they had marked it for destruction. It was a tribute to the first of the starmen, and they would destroy it. He wondered if they intended to destroy the hundreds of silent ships waiting in the starfield for a day which would never come. This hatred could be a two-way proposition, for suddenly Kenton found himself hating the men of the city.

KENTON looked up uneasily. All at once he knew he was not alone. He did not know where the little man had come from or when he had entered the square, but now he was standing there, his bald head hardly coming to Kenton's shoulders.

"You are a starman?" The little man's voice was not unpleasant, but there was something vaguely familiar about his accent.

Kenton scowled, and his voice was bitter. "You're not guessing, are you?"

"Why, no. No, I'm not. I see the letter S on your forehead, and so I know you are a starman."

Kenton put a hand up to his forehead. The worst part of it was that he could not even feel the brand. But it was there—a big black letter S. S for Starman. S like a motionless black snake from his hairline to the bridge of his nose. S so that everyone would know to hate him because he was a starman.

"Okay, I'm a starman. Now run along before you get hurt. Starmen hurt people, you know. They go around hurting people all the time. That's how they stay alive. So go away, old man, before you get hurt."

The little man shrugged. "I'm new here. There's a lot that I don't understand yet. But I'm not afraid of you just because you wear an S on your forehead. I'd like to help you..."

It had been a long time since anyone had said that, or anything like it, to Kenton. He looked hard at the strange little man. If there had been anyone who wanted to befriend him—wanted to help a starman—it would turn out to be a little man with glasses, a bald head, and a pleasant smile. A harmless, ineffectual creature.

"They're going to take down the statue," Kenton said. "They're going to take it down because they want to forget. It's been only ten years and they haven't forgotten yet: so they're going to take down the statue."

"He was one of you? He was a starman?"

Kenton nodded. "He was the first starman."

"And you are one of the last. It's pathetic in a way. Earth has been ruled out of space, and now the star-men have come back—"

Kenton often thought of this in self pity, but he had never heard anyone but a starman say it before. Yet this little old man could not be one of them; he was not branded with the black S.

"Who are you?" Kenton demanded.

"Does it matter? I have said I am a stranger in the city, and I am. Consider me as a tourist if you'd like. That's what I am, a tourist."

"Then you must be rich—only the rich travel today. And when the star-men brought the colonists back ten years ago, that doubled earth's population. Few people are rich. If you were rich you would not wear that shabby clothing. You are no tourist."

"Logical, my boy. That is very logical. You have a good mind. Your argument is valid, it is valid all the way through. But you are wrong, because validity and truth can be two very different things. I am a tourist."

STARMAN! Hey, look—the black S. He's a starman." It was a child's voice, the voice of a twelve-year-old boy, perhaps. It was the only sound except for the sweep of the wind across the starfield just north of the city on the hill. Kenton saw the kid come running into the square from one of the side streets, and then he saw him turn and call back over his shoulder.

"A starman, gang! Let's get him."

Kenton was not surprised to see the dozen kids out this early in the morning. Often they would sneak away from their homes before the sun came up and go out to the eerie starfield and play among the silent hulks of the starships. Kenton could remember his own youth, but it had been different: then he would creep out of bed in the darkest part of night

which comes just before dawn and he would run with his friends down to the base of the hill, and there they would watch the great liners taking off for Sirius or Altair or Fomalhaut.

But now the liners lay awkwardly about the field, like huge silver insects that wanted to fly but were wingless, and the wind swept down among them, scaring the kids who came to play every morning...

Kenton heard the stone clatter against the pedestal of the statue and he jumped back and crouched at its base. This was not the first time he had been stoned by children. With the little man he stood in the center of the square, and although now they were crouched behind the pedestal and out of range for the moment, some of the kids could circle around and pelt them from the rear.

The little man seemed unperturbed. "Why are they throwing stones at us?"

"Not at you, old man, not at you. You just happen to be here, but they're throwing stones at me. I'm a starman. I've got an S on my forehead."

"But why are they throwing stones?"

Kenton mumbled an answer under his breath. He was sorry the little man was with him, but now he could do nothing about it. The rapid tattoo of the stones set up quite a clatter, and he saw some of the kids circling the pedestal.

A stone struck his elbow, numbing his whole arm. He gripped the little man's shoulder. "I'm going to make a run for it," he said. "They're throwing at me, not you—and I'm going to make a run for it. They won't hurt you after that."

The little man put up a hand in protest, and he opened his mouth to say something, but Kenton put his big palm against the man's chest and shoved him back down against the

base of the pedestal. Then Kenton stood up and ran.

SOME OF the kids were frightened, and they turned and bolted for the side streets. But one of them was braver; he came close enough to stick out his leg and trip Kenton. Then he whooped triumphantly and called to his companions.

Kenton sprawled there on the pavement, and he saw the kids coming back. He started to get up, but he didn't have to. Someone yanked him to his feet.

The commotion had attracted some adults, and, in dressing gowns or pajamas, they had come running into the square. A big, blunt-faced man was holding Kenton by his numb arm and shaking a hairy fist in his face.

"We don't want you here. We don't want you, starman. What are you doing in this city?"

"He's scaring the kids. Damn him, he's scaring our kids."

"Yeah. He thinks he's hot stuff. A big guy, and he's tough with the kids. We oughta teach him a lesson."

"Why the hell don't you stay in the hills where you belong, starman? Why don't you stay in the hills and leave our kids alone?" This was a woman, and she came close enough to slap Kenton's face. She swung with her full arm and the heel of her palm struck Kenton's jaw. He was still dazed from his fall, and he reeled with the blow, but the blunt-faced man held him up so the woman could hit him again.

She pulled her arm back and this time her fist was clenched. Someone caught her arm before she could strike, and Kenton saw it was the little old man.

"That's enough," he said. "That's quite enough. Stop hitting him."

"Just who do you think you are?" demanded the blunt-faced man. "He's scaring our kids and we're going to

teach him a lesson."

"Well, I don't think you ought to hit him. I was here and I saw the children start throwing stones at him. He didn't do anything."

"He didn't do anything! Will you listen to that! He didn't do anything. He's a starman, and because of what he done ten years ago, our kids gotta go hungry. Because of what he done, earth's got six billion mouths to feed. Because of what he done, we can't ever go back to the stars and get rich again. He didn't do anything—haw, haw."

"I'm new here," explained the little old man, "and I don't know everything that is going on—"

The woman who had struck Kenton frowned. "Well, friend, if you're new here, you better mind your own business. Even if I can't see how you don't know about all this, you better mind your own business. These hicks..."

She pulled her arm out of the old man's grasp and turned again to Kenton. By now a dozen people had struck him, and she leered at his bloody face. Kenton tore himself away from the blunt-faced man and ran through the crowd. On its edge, someone else struck him and he tottered and almost fell, but he knew that if he did fall he would not get up until they were through with him.

THEN HE was through the crowd, still running. Someone grabbed at his jacket and pulled it off his back, and then he had ducked up a side street. Doors were opening now and people were shouting and he could hear the angry muttering of the crowd behind him.

Presently he reached an intersection, where a solitary ground car had paused at a traffic signal. He yanked the door open, and the fat driver grunted, "Hey, what the hell do you want?"

Kenton pulled the man toward him. He hit him once and hit hard and the man's eyes rolled wide and then closed. Kenton pulled him all the way out and let him slump to the pavement. Then he was in the car, studying the controls. The crowd was pounding up to the intersection now, and Kenton hadn't been in a car for ten years. A hand reached at the door and pawed within; then, with a whir, Kenton started the vehicle and left the crowd milling angrily at the intersection.

CHAPTER II

THE OTHER EXILE

KEINTON stood on the edge of the starfield, looking out upon the great silent ships. He should have kept right on going to the hills, he knew, because some of the city dwellers might be following him. Instead, he had circled around the long dimension of the starfield and parked the car on the other side, five miles from the city.

The wind came in fierce blasts, ripping into Kenton's raw face. It moaned fitfully against the hulls of the silent ships—against the *Arcturus*, only earth ship to reach the Magellanic Clouds; the *Centauri*, first earth ship to leave the solar system and return; the *Deneb*, of which Kenton had been the master pilot...

He could remember that day, so many years ago, when he had come straight from Spaceman's School on Luna to the *Deneb*, when he had been twenty-one and everyone had said "Yes, sir, Mr. Kenton," and "No, sir, Mr. Kenton," and when he had taken the great silver ship out for the first time. That was fifteen years ago; now the ship lay on its silver belly among a thousand others as the wind whistled by.

Kenton was not aware that he had

been walking until he covered half the distance between the edge of the field and the huge bulk of the *Deneb*. The ship was just in front of him, and a smile tugged at the corners of his mouth. He had been the master pilot, not the captain, but the *Deneb* was *his* ship. He followed its flowing lines with his eyes now: built long and slender not for speed, for it met no resistance in the inter-stellar void, but for beauty. He could remember that first day going up the ramp in his shiny new uniform and all the smart salutes of the minor offices. Now those officers—if they lived—were starmen with big black S's branded on their foreheads, members of the fraternity of hate.

The ramp was there, the same ramp, and Kenton's feet carried him up it again. He wore no jacket, his shirt was torn and his face was cut and bruised, but he walked proudly up the same ramp and reached the *Deneb*'s port. He stood there a long while and let the wind buffet him. Then he turned his back on the wind and pushed against the port. Rusty machinery ground in protest, and then Kenton almost fell back off the ramp.

The port had slid open.

His slow measured step was almost reverent as he entered the ship and he could feel his heart pounding hard under the torn shirt. Only a little light came in through the port, and he followed one wall of the companionway with his hand. He headed forward for the engine room, where, if some accident had also left that door open, he might caress the controls and firing studs of the great starship he had once piloted.

The sound his shoes made on the metal floor of the companionway was abnormally loud, and his hands trembled when he reached the door. He stood there for a moment, praying it would open to his touch, and then he

gave it a sudden push.

The door stood ajar and the light from the sun, streaming in through the fore-port, blinded him. Then something hurtled against him and he was born to the floor back out in the dark companionway, and he struggled with an unknown assailant.

Tears of rage welled in Kenton's eyes. "Damn you," he muttered. "Damn you!"

IN THE DARKNESS he could not see his attacker, but he fought. The ordeal of the morning had left him weak, and for a while he lay there, the fists pummelling his face and body. Someone sat astride Kenton and was hitting him, but he realized the blows were not hard ones. He pushed up and over and he heard a whimper, and then he was on top, reaching for his assailant's throat.

His hands found the throat and his fingers closed down on it. He leaned forward, exerting pressure, and then, abruptly, he stopped. The faint scent of perfume reached his nostrils—he had not smelled perfume in ten years, but he could not mistake it. As he relaxed his grip, the whimpering came again, and Kenton knew this was no man he fought. He had almost killed a woman.

Stiffly, he stood up and backed away, watching the dim shape rise there in the darkness.

"Okay," the girl panted. "You're big and you're strong and you can beat up a woman. Now I'll go back. "I'll go back to George Bancroft. Now are you satisfied? He must be paying you plenty for this."

Kenton said, "I'm not taking you back anywhere because I don't know where you're supposed to go. I never even heard of George Bancroft. So keep your shirt on."

"Well, if George didn't send you, why did you follow me here? No one but kids come out among these ships

anymore, and all the ships except this one are locked. So why did you follow me?"

"I didn't follow you. I came here because I once piloted the *Deneb*, and I wanted to see it again—"

Kenton was sorry as soon as he had spoken. Now the girl would know he was a starman.

"You piloted the *Deneb*?"

Kenton muttered "yes" under his breath.

"Then you're a starman!" Kenton found himself liking the sound of her voice. He was used to the coarse women at the starmen camps in the hills, and this girl sounded different. "A starman—and I know you. You're Keith Kenton."

"Yes, I'm Kenton..." His voice trailed off. How had she known? No one hob-nobbed with the starmen; no one came near them except in hatred. Yet she knew his name.

"Hah!" she said. "You're surprised that I know you. Don't be, Kenton. I've studied history; I know my star-men. Keith Kenton, Master Pilot, Starship *Deneb*, born 2878, graduated Luua 2899, five years a pilot, then came back to earth with the Sancti-on in 2904. Keith Kenton."

"You have an advantage. I don't even know your name."

The girl laughed again, and suddenly Kenton did not care if he got into the engine room or not. He wanted to go outside with this girl and see her there on the ramp with the wind blowing in her hair. He didn't know how he knew, but he knew she'd be lovely.

He reached for her hand and she drew away from him. "Careful, Kenton. You're right, you don't know me. Please don't start getting impetuous. I've had enough of impetuous men."

Now Kenton laughed; and he had not heard the sound of his own laughter in a long time. "Nothing like that. I'm too tired. I just wanted to take

your hand so we could walk down the companionway together and go outside where I can see you."

He was conscious of the silence, and then he heard the girl's voice again. "All right, Kenton."

The girl's hand took his in the darkness. He liked the feel of it.

THHEY STOOD at the foot of the ramp and Kenton looked at the girl. He looked a long time and she said, "Stop it, I'll blush."

Her skin was very white and she had the greenest eyes in the world. The wind swept her dark hair around her face and where the sun touched it, the highlights were red. Kenton's gaze moved down. She wore a tunic of pale green, custom-tailored and glove-perfect in its fit. Her legs were long and straight, very white where the skirt ended at mid-thigh. Kenton realized he had not yet let go of her hand.

For her part, the girl stared at Kenton. Mostly her eyes remained rooted to the black *S* on his forehead.

"You know," she said, "I've never seen a starmen before."

"It isn't odd," Kenton admitted. "It's not odd at all." Then he asked a question: "Are you a colonist or a terran?"

"Oh, I'm terran. If I were a colonist, I'd have returned to earth in '04, and I'd have seen my starmen then. No, I'm a terran, but sometimes I look at the stars and I wish—"

She stopped, and Kenton just looked at her. Then she said: "I wish there was no Sanction. I wish I was—"

This time she turned away, and she said, "You'll only make fun of me, Kenton."

"I won't make fun of you."

"I wish I were out there among the stars. I don't like the earth, Kenton. I don't like it at all. There's not much I can do about it, and I've never

been anywhere else and so I can't be sure, but I think I would like it better. You've been...everywhere, Kenton."

He smiled. "You would like it better. You'd like it much better. The earth is a tired planet—a luxury planet once, a pleasure planet. But now it's a hard place to live. The population is doubled, and half the people are unemployed. Then there are us starmen..."

"Why do they hate you so, Kenton? Oh, I know the reason, but why is there so much hatred?" She put her hand on the black *S*, ran her fingers soothingly over his forehead.

Kenton smiled slightly. This was the second time today someone had shown sympathy. First the little old man there in the square, and now this girl. Ordinarily, Kenton was not talkative. But now he wanted to, because he knew the girl would listen.

THHEY WALKED in silence for a while, past the *Arcturus* and past the *Centauri*. She looked up at him—again her eyes strayed to the *S* and stayed there, and he saw pity in them. "Why, Kenton? I've asked you a question. Tell me why."

Kenton's answer was another question. "What's your name?"

"Why don't we leave it this way? I'll walk with you until it gets dark. I'll walk with you long into the night if you want. But don't ask me who I am. I'll walk with you and be your friend, Kenton, but don't ask me my name."

"Why not?"

"Just don't, that's all."

Kenton said lightly. "Okay, okay. I won't. But don't you go around asking me questions."

"Please, Kenton, you're being unfair. You don't know *why* I can't tell you my name, but it's not just a whim. I can't tell you because I don't

want you to know who you've been with."

"I never would have known it." Kenton could feel himself getting bitter again, and he tried to tell himself how unimportant her name really was, but he knew he wanted her to tell him. She smiled, but now she let go of his hand. "You're pushing me, Kenton, and I don't want to be pushed. Look: maybe I'm trying to get away from someone, and maybe, if you should be asked, I don't want you to be able to say you saw me. Maybe I'm running away, too."

Kenton looked again at her clothing. It was a delicate fabric, an expensive fabric. Even this soon after the Sanction there were few rich people left on earth, but he knew this girl was rich.

"They hate you enough to beat you, Kenton. That's what happened to your face, isn't it? Your face doesn't look so good, Kenton."

"What's the difference? Very few people look at it. We starmen aren't exactly social lions."

"I was fifteen when the Sanction came, Kenton. That was ten years ago. I read the papers and listened to the reports. But I was a kid, and didn't really understand. And now everyone hates you starmen, but I don't hate you. You did something wrong. Maybe you did something terribly wrong—ten years ago. All of you didn't do it, though."

Kenton said, "It was done, all right, and now earth has six billion people. Not three billion, spread out all over the planet and living off the luxuries of the star-trade. But six billion, and that's a lot of people. Six billion, with not enough jobs for half of them."

"Maybe the colonists hate us even worse than you terrans do. Earth is not for the colonists, but they were forced to return. Now they're out of

place, and most of them are out of work."

"I was almost a colonist, Kenton. I remember, just before the Sanction, we were going to the Vegan system. I had an uncle there, and he was getting Dad a job, a good job. But the Sanction came and now my uncle's back on earth. He's been unemployed for ten years, and once he found a starmen getting food from our cook. He killed the man. He killed him and a lot of people saw it, yet no one did anything. They shouldn't be able to go around killing—"

"The old laws don't apply. Oh, they apply to terrans and they apply to colonists, but they don't apply to starmen. There are only a couple of hundred thousand of us, and the old laws don't apply. If the people had their way, we'd all be killed. But they don't, because it's just possible that one day the Sanction will be lifted, and then the starmen will be needed to take earth's millions back into space again."

"Instead we wear the black S, so everyone will know we are starmen, and we can't get jobs anywhere. Then the people say, 'See the shiftless starmen.' And a lot of us become outlaws..."

"Were you ever an outlaw?" she asked.

"I have to eat. I haven't had much to do with the bands in the hills, but I have to eat."

THE GIRL turned around and faced him, and Kenton was lost for a moment in the depths of her eyes. Above them, the sun was low on the horizon now, and the cold winds had begun to blow again over the starfield, moaning past the silent hulks of the starships. They were in the middle of the starfield, and it stretched from one horizon to the other, except where Kenton could see

the city on the hill way off in the distance. It stretched out in all directions, barren and brooding, more a graveyard than any cemetery Kenton ever had seen.

Slim fingers dug into Kenton's shoulder, and the girl's face was close to his. "What really happened?" she said. "What happened out in the Fomalhaut System ten years ago? Tell me, Keith." It was the first time she had used his given name.

Kenton frowned. She was a wealthy girl with wealthy friends, and maybe she just wanted him to tell her so she could tell all her friends about the day she had spent with a starman. Once on the *Deneb* a girl had spent the whole voyage with him, laughing and drinking and dancing. But she met her fiance in the Centauri System, and as they walked away Kenton had heard her speaking of all she had learned from the Master Pilot. Now, again, it was a girl on the *Deneb*, the silent hulk of the *Deneb*, only this time she had come off the ship with Kenton. There was no one else and she had come off the ramp all alone with Kenton.

"IT WAS the *Deneb*," Kenton said.

"It was the *Deneb* out in the Fomalhaut System, and I was there."

"Keith—you saw it. The histories never say which ship was responsible; they only tell what happened, not how or why. You were there..."

"We had come through to Fomalhaut in record time, six days. Everyone celebrated. Six days was quick, all the way out to Fomalhaut, and we had a wild party to celebrate. Some of the men got drunk. We all got drunk, but some of us got too drunk.

"The Captain couldn't hold his liquor. He couldn't hold it at all, and he should have known. We were waiting for clearance out of hyper-space, but the Captain became impatient. He

blasted out too soon and we were close to Fomalhaut, and someone forgot to lock the hyper-drive. We came through into space with both drives going.

"Do you know what the hyper-drive can do to a star? We couldn't shut it in time—the Captain had locked himself in the control room, and some of us knew because the stasis was still going, but we couldn't get in. Do you know what the hyper-drive can do?"

Kenton could feel the tears in his eyes, and the wind stung him. The girl said: "There are the histories, but they don't tell much—"

"It can knock hell out of a star. Fomalhaut is a big baby, but the hyper-drive is a pretty powerful thing—it can shoot you across the galaxy to the Magellanic Clouds in a few years. It took us to Fomalhaut in six days, record time. And we switched out of hyper-space too soon, without clearance, with the hyper-drive going full blast.

"We broiled Fomalhaut. In a few seconds, we turned it into a supernova. In a month it had used up the energy stored there for billions of years of future use. We high-tailed it back into hyper-space and we weren't touched. But Fomalhaut..."

"Fomalhaut had six planets. Six planets and twelve billion inhabitants. They were a slow people, several hundred years behind earth in development. They had interplanetary travel, crude stuff, but they never got out of their own system. They roasted. Every one of them roasted. In a matter of days, the twelve billion inhabitants of the Fomalhaut System were dead, and we had killed them..."

Kenton was crying openly now. The tears were rolling down his cheeks, but no sound came out of him. They had sat down on one of

the many ramps, and the girl drew his head down on her breast. "I'm sorry, Keith," she said. "I'm really sorry. I shouldn't have made you talk."

HE SMILED and straightened up. "No. No, it's good. I've got to get it out, and the way we live now, I can't. But *twelve billion* people! They weren't exactly human, but they were people—you get to feel that way when you're a starman. Twelve billion people, and we killed them. They never had a chance.

"The Interstellar Government met in special session. It hardly ever meets, you know—only in a real emergency. They met, and to a man, they voted earth out of space. We weren't ready, we were too young, and there was too much danger. It wasn't likely, but something like that could happen again. One chance in a million, maybe less—but they didn't want to take the responsibility, and earth was ruled out of space. Confined to the solar system, which is a laugh—because earth alone can harbor life here.

"So, after the Sanction, the starmen came back. We brought the colonists with us. They had no choice, either. They were exiled back to earth, every last one of them. And earth had lived on the luxury trade of the star-lanes. All the really big cities were gone, and earth couldn't support six billion people. It had to, it's doing it now, but in ten years the standard of living dropped five-hundred percent. The roof fell in, and it hasn't hit the ground yet."

The girl nodded. "So the starmen are to blame."

"Yes. And in a sense, they're right. The qualifications on Spaceman's School entrance should have been more rigid. I don't know. We're to

blame, and we're branded, so everyone will know."

"And no one on earth—except your crew—has ever seen what happened to Fomalhaut."

"I hadn't thought of that. But you're right, of course. Fomalhaut is a lot more than ten light years away, and it still shines as if nothing has happened. Suddenly, years from now, it will flare up—"

"Maybe by then the people will forget."

"They'll never forget. No one can marry a starman. It's forbidden. Women are taken in the hills, of course, but the starmen are dying out. The people will forget in another fifty years, when there are no starmen left, but not before. Meanwhile, we can only die..."

"You could go into space! Unlawfully, you could go into space."

Kenton smiled ruefully. "No. There's the Sanction, and they have monitors. In the beginning, a few of the starmen tried, but they were blasted out of space. We're earthbound. The whole culture is earthbound, with nothing to do. It's as if the stars don't exist. And we're going backwards. Civilization is collapsing. It's hard to see in ten years, but with all this unemployment, all the discontent—earth is on the way down."

"I met a guy today. He was a tourist. I don't know where he was from, but he was a tourist. That's rare; there just aren't many tourists any more. There's no time, there's no money, and few people want to do that sort of thing. Once you've been to the stars you can't be content with one stinking little planet in a system of eight other worlds, all dead..."

THE SUN had set and now the stars were out. It was a clear night with no moon, and the great white arc of the Milky Way spanned

the sky mockingly. The liners were huge dark shadows on the starfield, and off in the distance the lights of the city on the hill could not dim the stars. The wind didn't hurt Kenton's face anymore—he could feel the stiffness where blood had clotted.

The girl seemed perfectly content to walk with him and say nothing, and Kenton felt more at ease than he had in the past ten years. Once they looked up together, spontaneously, at the stars, and Kenton thought of the statue in the square. According to schedule, it had been destroyed today.

Suddenly they heard the distant whir of an automobile motor. The girl said:

"They're looking for me."

Kenton couldn't argue with that. He didn't know why the girl was out here on the starfield, but he did know that she was running away from something. And no one—except kids, who didn't drive ground cars—came out to the starfield anymore.

The sound grew louder, and presently Kenton saw a great fanning search-beam rove over the shapes of the deserted liners. Not more than a few hundred feet could be between them and the car now, and the girl huddled close to Kenton as the beam swept near them. They tried to duck down beneath one of the ramps, and for a moment Kenton thought they had made it. But the beam cut sharply back, probing the darkness under the ramp.

Soon the whir of the engine stopped altogether, and the silence which followed hurt Kenton's ears. He could feel the girl trembling beside him, and he put his arm across her shoulder, clumsily. Then he heard footsteps in the darkness under the ramp, just beyond where the beam could reach.

"Come on, get out of there," the voice said. It wasn't a loud voice, but it was loud enough, and Kenton rec-

ognized the ring of authority when he heard it.

"I know you're there, so come on, get out. Now."

They were under the ramp, and here the ramp was three feet off the ground. In the light of the beam from the car, Kenton saw the legs. There were four legs—two men—and they were close. Then one pair of legs bent at the knees, and a new light, a strong and blinding light, knifed in under the ramp.

The voice again: "Okay, I see you. Now, come out."

KENTON took his arm away from the girl's shoulders. This wasn't his fight, and maybe those two men had a gun. He crawled until he had gotten out from under the ramp, and then he stood up, the light shining in his face and blinding him. A sound from behind him indicated the girl was coming out, too.

The voice, this time close by, said, "Do you see that? Do you see what I see? I don't know who he is, but he's with her and he's wearing the black S. He's a starman. Now what would she be doing with one of them?"

The other voice was softer, and Kenton could tell that the man didn't want to say much. "You never can tell what Valerie will do. Here's Valerie, and there's nothing amazing about her being with a starman."

The girl said quietly, "Hello, George. Okay, you found me. But I don't want to go back with you."

The softer voice belonged to George. "You haven't much choice, Valerie. You'll come back with me."

Kenton said: "The lady said she doesn't want to go."

The deeper voice, the voice that wasn't George Bancroft's, answered: "Watch it, starman. This is none of your business, and it could get you killed. No one would care, you know."

"I'd care," the girl told him. "Don't hurt him."

"Okay, okay." This was George, and he still held the light so Kenton could not see. "So you'll care. We won't hurt him. We'll let him go back to the hills where he belongs. But you're coming with me now, Valerie."

"There's only one thing you don't seem to understand."

"Yes? What's that?"

"I don't want to marry you, George. I don't want to marry you, now or ever. I'll go back to the city if you force me to, but I won't marry you. Do you understand that?"

In answer, a hand came into view and grabbed the girl's shoulder. She tried to pull away, but the hand was strong and her struggles were useless.

Kenton swung the side of his own hand down in a hard chopping blow against the man's wrist. The hand retreated into the darkness, and George's voice said:

"Take care of him. Take care of the starman."

Into the light came the big bulk of the other man, but Kenton hit him before he could get ready. Kenton hit him just once, but the man moaned and fell slowly out of the light.

Kenton heard an angry oath from George, and the beam of light did a crazy dance upwards and then came down fast, and Kenton realized George was trying to hit him with the torch. Kenton lunged down and away and the light swung past and he struck out blindly behind it and felt his knuckles brush against George's face. Then they were in close, slugging at each other, and this George could punch. It was so dark that Kenton could see nothing. The light fell and went out, and someone shut off the fanning beam in the car, probably the girl.

George began to falter. Kenton kept on punching, but he had to low-

er his blows or he would be striking at air. He felt the bulk of George's weight at his knees, and he had a wild temptation to kick out with his leg. Only it wasn't necessary. George Bancroft had had enough, and now he slumped all the way to the ground and lay still.

Kenton stood there, panting. Then the fanning light from the car went on again, and the engine started, drowning out the sound of the wind.

The car crawled over to Kenton and stopped. The girl was at the controls.

"Let's go," she said. "Get in."

CHAPTER III

THE HUNTED ONES

IT WAS a nice day, a warm spring day, and up on the other side of the hills the wind was not as strong. They had abandoned the ground car at the foot of the hills because it was not made to travel over rough terrain, and they had made their way up and over the hills on foot. Now they were hungry. Three days had passed; and while they could satisfy their thirst in the mountain streams, the berries and fruits they ate were not enough to satisfy their hunger.

When Kenton was still a boy, he would come to these hills, because from the very highest point you could look down on the starfield and see the tiny dots of ships as they took off. Now the ships didn't take off anymore, and Kenton and the girl had already passed that high point and kept going. Kenton wanted to put as much distance as possible between them and the city.

Here, on the third day, the girl noticed the extent of wilderness for the first time. "Kenton, there are no people. It's deserted. With six billion people on earth, how can that be?"

He laughed shortly. "You forget that the starmen take to the hills, but they stay near enough to the cities so that they can raid for food and women. People give the starmen a wide range—no one wants any part of 'em unless they come down to the cities, and then there's trouble."

"So there are starmen in these hills?"

"Yes. Here, somewhere, there's a big camp of them, perhaps the biggest. Don't you worry your pretty little head, Valerie, they'll find us."

"What are you laughing about? They'll find us—and what will they do?"

"Don't worry. Don't forget, I'm a starman, too. They won't do a thing—and we'll get food."

"We'd better. I'm beginning to feel that there isn't an ounce of flesh on me."

"You don't look it. Besides, I didn't like the idea of you coming up here with me. But then you didn't want to marry the guy."

"What do you mean, me coming up here with you? Who got the car?" Valerie laughed musically, then sobered abruptly. "I didn't have any choice, Keith. George has everything my family wants, and they want me to marry him. I couldn't. We don't get along on anything. We disagree on the most basic things. He probably hates starmen more than anyone else in the city. I mean it, Keith, he probably does. And I—"

"What about you?"

"I don't hate starmen at all. I've only met one, and I don't hate them at all. Keith..."

He took her in his arms and kissed her. For a long while they stood together, close together and her lips were warm and soft and Kenton didn't want to stop kissing her, ever. She pushed him away, slowly, and she was smiling.

Her voice was tremulous: "Keith, I never have to go out of the hills. I could stay here with you and—"

"Sure, sure. How would we live? It's not for you, Valerie. It can never be for you."

He knew—he also should have said that it couldn't be because he was a starman. But he didn't say that. Instead he turned and walked away. In the silence he heard the girl moving through the undergrowth behind him. He began to whistle. It was the first time he had whistled in years, he realized. It was a song that had been popular during one of his last flights on the *Deneb*.

WHEN Valerie heard the sounds she told Kenton they were being followed, but he shook his head. No one would come on foot looking for them in the hills. If George was looking for them, it would be in an aircraft.

Yet the sounds were there, for Kenton heard them too. They were not the only one crashing through the thick undergrowth. Kenton said: "The starmen have found us."

Valerie shuddered a little, and Kenton took her hand. "You'd think they'd be quiet about it," she said. "But they're clumping through the woods like a bunch of kids on a picnic. I'm scared, Keith."

"What have they got to be quiet about? No one comes up into these hills, unless he's a starman. Or unless he's running away from something. In the camps here you'll find a few men who don't wear the black S. They're here because they can't go back to the cities, and the starmen are glad to have any additions."

"I'm scared, Keith," she said again.

"Take it easy, Val. You've got nothing to be scared about. The starmen are hated, but they don't really hate in return. At least most of them

don't. Actually, they're a little afraid, and they keep to themselves except when they venture down to the cities for supplies.

"For supplies? Who sells it to them?"

Kenton laughed. "No one sells them anything. They take what they want, and then they beat it back to the hills. It's only been ten years, but a lot of people in your cities have never seen a starman."

"Um, yes. I've heard mothers make their children behave by saying 'The starman will get you if you're bad.' Did you know that you were a bogeyman, Keith?"

Kenton was about to answer, but he heard a drone from far off. Immediately, the sounds in the woods about them ceased, and the droning became louder. Soon a speck appeared on the horizon back in the direction of the city. It grew larger, and presently Kenton could make out a gyro-plane, a solitary little flying ship approaching from the city.

"That's George," Valerie said.

Kenton grunted as he watched the craft grow. The droning became louder, and soon the ship was directly overhead, not more than two or three hundred feet above the wooded hills. It came so close that Kenton could see the license number on the gray bottom, then passed and droned on until it became a dot in the sky. Then it was gone.

"That's George," Valerie said again. "I know his license number."

"Well, he didn't find anything. He's out looking for you, but he didn't find anything. It won't be easy for him, here in the hills."

She said: "He's still looking."

AND THEN she was silent. The noises had started again in the woods, and soon Kenton could see the men coming through the undergrowth.

There were perhaps a dozen of them, and all wore remnants of their uniforms, as did Kenton. They approached easily, confidently, not at all worried by the appearance of two strangers, and presently one of them said:

"Kenton? You're Keith Kenton, aren't you?"

Kenton had lived alone instead of with the bands of starmen in the hills, so he did not at first recognize the man. He was big and burly and his hair was very dark, with a dark tangle of beard covering his face. What was left of his uniform showed that he was a captain.

More than anything, it was the bushy black hair which told Kenton who the man was. Ten years slipped away, and Kenton almost found himself coming to attention smartly and saluting. "Captain Harkness," he said, and there was emotion in his voice.

Harkness had been captain of the *Deneb*. It was Harkness who, that terrible day in the Fomalhaut System, could not hold his liquor. Harkness...

"—wondering about you, Kenton," Harkness was saying. "Almost all the old crew of the *Deneb* is together here. Only you, and Denton, and Farley—"

"Farley is dead," Kenton said. "I saw him killed." He had been living in the hills with Farley in the beginning, but one day they had gone down to the city and Farley was killed. That was a long time ago, and until now he had almost forgotten the incident completely.

But the sight of these men made everything come back in a rush. Captain Harkness, Jenkins, O'Keef, Larkin, Finer—they were all there. The men of the *Deneb*. The proud officers of the *Deneb*, living now in the hills like savages. The cream of earth's culture—or they wouldn't have been

starmen—reduced to this. He remembered the day Farley had been killed. They had gone down to the city to get some books: Farley couldn't go for long without Chaucer and Proust and Hemmingway and a lot of the other ancients, and he had been killed getting those books.

Now Jenkins and O'Keef and Larkin were thumping him on the back and smiling at him, and he stripped the beards away with his mind, and how easily the years went with them! There was Larkin pouring over his astrogation charts, flame-haired O'Keef, the exec, thundering his orders down to the 'low decks crew, shy little Jenkins showing some passengers through the communications room....

NOw THEY stood around him in old and filthy clothing, in torn clothing, with beards on their jowls and bangs on their foreheads to hide the black S. They all came and they pounded Kenton's back and shook his hand and they jabbered about him excitedly. All except Harkness—after the first happy greeting, Harkness hung back, and Kenton gestured to him now.

"What's the matter with him? He's your leader, isn't he?"

"Harkness?" Larkin snorted. "Harkness, our leader? Hell, no. No one pays much attention to Harkness now. He hardly ever talks. He said hello to you, and that's amazing. That's probably all you'll get out of him—"

"Oh, he *talks*." This was little Jenkins. "But better not pay too much attention to what he says. Our leader? Well, that's Brian here," and he pounded big O'Keef in the ribs.

O'Keef grinned affably. "Glad to have you back with us, Keith, boy. Even if you are a Scot." And then he was laughing, and it was the old

humorous bone of contention between them, as it was ten years ago, and Kenton knew that the big smiling O'Keef had not changed much.

"Mister Kenton! Mister Kenton!" It was a voice Kenton remembered well, and again, he had the odd feeling that he should jump to attention.

Captain Harkness approached him. "We're set to blast off, Mister, so what are you standing around for? Get set, Mister, because we're ready to blast off for Fomalhaut." His face was very serious.

"Oh, Lord," Larkin said. "He's going to Fomalhaut again. It isn't so bad when he goes anywhere else, but when he goes to Fomalhaut he just keeps talking and talking—"

"You there, Larkin: got that orbit mapped?"

Larkin snapped to attention. "Yes, sir. All right now, sir. On the beam all the way." He nudged Kenton with his elbow, but Kenton knew that Larkin wasn't so tough. He was not humoring Harkness to be funny. He felt sorry for the man.

Harkness shouted his orders around in the voice that Kenton remembered so well, and presently O'Keef said:

"All right now, sir. We're underway. We can take it easy for a while."

Harkness smiled. "You think so, Mister O'Keef? You think it was a good blast-off?"

"It was perfect," O'Keef assured him.

VALERIE HAD stood on the edge of the little clearing, not saying a word, and it was the first time, Kenton realized, that his thoughts had been off her for more than a few moments since they had met.

"Hey, Val," he called, and smiling a bit shyly, she approached. Kenton introduced her around and she nodded to everyone and Kenton told them that this was his woman. He waited

for Valerie to deny it—he almost expected her to do so, but then he knew that she'd understand this was the best way. By telling them she was his woman, no one would bother her.

They all nodded and they smiled and they shook Valerie's hand as if she were a man. All except Harkness. Harkness wanted to know what a woman was doing hob-nobbing with the crew.

Kenton was still talking about old times as they walked to the camp, talking with Jenkins and Larkin, O'Keef and Finer, talking of the days when they were the rollicking crew of the *Deneb*. The rollicking happy-go-lucky crew of the *Deneb*, the laughing crew of one of the biggest, proudest liners in the fleet. And now they wore beards, and they wore bangs because they didn't want to be reminded of the black S on each forehead, and the captain still gave his orders here on earth in the hills beyond the field where the *Deneb* waited silently, and no one listened to him....

CHAPTER IV

THE OFFER

THERE WERE some things about the camp in the hills which Kenton liked, and for a time at least he was sorry he had not spent those last ten years there. Actually, though, it was hard to tell. He was happier now than he had been in a decade, but he knew that Valerie, as much as anything, was responsible for that. Best of all he liked to sit high on a hill at night with the girl at his side and watch the great sweep of stars overhead and dream that one day he would be out there again, in all that splendor, and this time the girl would be with him.

Several times in those weeks which followed, Kenton heard the far-off

drone of aircraft, but only twice did a ship actually come close enough for them to see it. The first time it was George again, and he swooped down low over the camp and Kenton could not tell if he had seen it or not. The shacks were of wood, roofs covered with branches and shrubbery, built about the big clearing haphazardly. From the air they should look like so many trees or clumps of trees, Kenton thought. And that, of course, was the idea. The starmen wanted it this way: they wanted the location of their camp a secret. Brian O'Keef had told Kenton about that the first day. The smile had gone from the eyes of the flame-topped giant as he told Kenton that you'd never know when the city-dwellers would take it upon themselves to comb the hills for the starmen.

The second airship was not George's. Even from a distance they could tell it was much too big, and when it came close Kenton saw that the license number was different. The ship hovered over the camp for a long time, its gyro-blades gleaming in the sun, then it dipped once and headed back toward the city. O'Keef didn't like that. He didn't like that at all. The unknown pilot. Kenton thought, had certainly seen the campsite for what it was.

After that, there were no more forays into the city. The starmen had enough of everything for a while: their provisions weren't luxurious, but Kenton had had much worse—he had lived on much worse for ten years, and he found it no hardship to remain in the clearing.

ONE DAY NOT long after the second airship had come and gone, Valerie, laughing mysteriously, led him to a hut a little larger than the rest.

There a man met them at the doorway and, smiling, ushered them in. Then he stood back in the shadows of the interior and he waited, and presently Valerie spoke.

"Keith, do you want to continue to sleep on the floor forever? I sleep in the bed in our shack and you sleep on the floor, and sometimes I feel sorry for you."

"Well, thanks, Val—but I certainly wouldn't want to change places with you. You're a woman—"

"I'm glad you think so. I was wondering. So I'm a woman, Keith... and are you a man?"

"Now, what kind of a question is that?"

The gray-haired man stepped out of the shadows, and the black *S* on his forehead stood out sharply under the gray shock of hair. "Let me introduce myself," he said. "Then maybe you'll see what this young lady is driving at. I was the chaplain aboard the *Arcturus*. I'm still a chaplain—"

"Oh," said Kenton. "Oh..."

"Now do you get the idea, Keith? Never mind that question. I'll ask another one. Keith, do you love me? Tell me, because if you don't—"

"If I don't—what?" But Kenton was smiling as he took her in his arms, kissing her hair, her lips, her neck; and she was laughing and crying at the same time, and Kenton might have stayed with her that way all day, but the chaplain cleared his throat. As if on a signal, O'Keef and Larkin and Jenkins and a dozen other men came in, and a few women, and then the chaplain began the ceremony....

It wasn't a long ceremony, and Kenton was in pretty much of a daze all the way through. But when it was over he felt very much married, and he shook hands all around and everyone kissed Valerie until Kenton finally grabbed her and took her outside,

where he did some kissing himself.

LATER THAT same day, George Bancroft came to the camp. This time there was no aircraft. George came suddenly and he came on foot, and the most surprising thing of all was the fact that he had a big black *S* on his forehead.

Kenton had been talking with Brian O'Keef in his shack, and as he came outside into the sunlight he saw Valerie arguing with someone. Kenton couldn't hear her words, but he could see her frowning, and the man's back was to him. He hurried over and stood beside Valerie, and the man was young and good-looking and Kenton recognized the soft voice as George's. But this was all wrong: the man had a black *S* on his forehead.

"Yes, Keith, it's George all right. You met under different circumstances last time, Mr. Bancroft, Mr. Kenton."

George nodded curtly, and Kenton said: "I didn't know you were a starman. I fought with you in the darkness that night on the starfield, but I didn't know you were a starman. Val never told me."

"He's not," Valerie said. "He never had the mark on his forehead before, and I've known him all my life. George is no starman."

George laughed. "Who said I'm not a starman? I have the black *S* on my forehead, so how can you say I'm not a starman?"

Kenton couldn't understand it. He had to believe Valerie, of course. If Valerie said George was not a starman, then he wasn't. But no one in his right mind would be branded with the black *S*, no one would submit himself to certain ostracism for no apparent reason. Then George must have a reason, he thought.

Valerie said, "He wanted to be a starman. Twelve years ago when the

best blood on earth wanted to join the space fraternity, George wanted to be a starman. We were kids and we were friends then, and I remember how happy George was planning for it."

George scowled. "That's enough, Valerie."

"No, it's not enough. He planned for it and he dreamed of little else. But when he went to Luna to take the test at Spaceman's School, he couldn't make the grade. Psychologically unstable, they said, and George came back to earth. He's hated the starmen since then, even before the Sanction he hated them. So he had a head start on everyone else, and that's why he hates you so much now. Isn't that right, George?"

"Shut up, Valerie. It's purely by accident that I came here. That is. I came here on purpose, but I didn't know you were here. I came here to do a job and I'm going to do it, and when I'm through I'm going to take you back to the city and we'll be married."

KENTON laughed. "It's against the city law for a girl to marry a starman. Didn't you know that, George? It's against the law."

"I won't be a starman then," George assured him. "This black mark can come off, after it serves its purpose."

Kenton was about to ask him what purpose that was, but Valerie said: "I won't be able to marry you anyway. I'd be a bigamist. Kenton and I were married today. I'm Mrs. Kenton." She put her arm around Kenton's waist and she smiled up at him, and Kenton watched George's face flush an ugly crimson.

"We'll see about that," he said. "We'll see about it. As Kenton admitted, it isn't legal."

"It's legal enough. A chaplain per-

formed the ceremony, and since we're going to live among the starmen, it's legal enough. Look, George, don't bother us: my husband doesn't like to be bothered, so please go away."

Again George laughed. "Why should I go away? I'm a starman and this is the starman camp."

A shadow loomed up near them, and Kenton looked into the smiling face of Brian O'Keef. "Hello, Brian," he said. "Here—"

"I see we have a new recruit, Kenton. Lord, how we can use him. Another arm to raid the city for us. What ship, lad?"

George smiled, and Kenton had to admit it was a winning smile. "I'm afraid I'm pretty much of a stranger. Name is George Bancroft. But you have no one here of the *Altair's* crew, do you?"

"No. Afraid we don't."

"Well, that's what I thought. I was the exec of the *Altair*, but I can't seem to find any of the crew in the hills. I'll live here if you let me—"

"Let you!" O'Keef roared. "We wouldn't let you get away! We can use men, son, we can use men. The *Altair*, eh?"

"Don't let him fool you, Brian," Kenton said. "I don't know what he wants here or why he's wearing the S, but this man is no starman. Ask my wife."

"He's not," Valerie said. "I've known him for years."

Brian smiled, and the grin was meant to be friendly, but it looked like a gargoyle-mask on his battered face. "You must be mistaken, ma'am. You have to be mistaken. Not a starman—that's crazy."

KENTON realized that it *did* sound crazy. It was ridiculous—no man in his right mind would wear the brand of a starman unless it were forced on him in the Sanction. Yet

George wore it, and Valerie claimed George was no starman. How could you prove it? Kenton knew that you couldn't.

"—met this man," George was telling the grinning O'Keef. "It sounded like a good proposition, too, and I intended to take him up on it. I haven't run across him again, and that's why I'm here. But he said he'd be in the hills, visiting the camps, and when he comes here, I'm going with him."

Kenton had missed the first part of what George was saying, but he could see that O'Keef was jubilant. "Did you hear that, Keith, lad? Did you hear it?"

Kenton was suddenly very weary. He knew that George was up to something, but that he could do nothing about it. "No," he said. "I didn't hear. What, Brian?"

Valerie said, "Are you crazy? Are you both crazy? This man is not a starman. I know him. I've known him all my life. You've met him too, Kenton. You know he's not a starman."

"Sure," Kenton agreed. "But prove it. How can you prove it?"

"You're mistaken," O'Keef said patiently. "You have to be mistaken."

"Of course," George agreed, smiling. "The lady is thinking of someone else. Perhaps someone who looks like me. It doesn't take much to tell I'm a starman."

"Naturally," O'Keef said. "Naturally. But that's not the important thing. The important thing is what you said.

"How would you like to have that *S* removed, Kenton? How would you like to live again like a normal human being because there won't be anything to set you apart? How would you like to live without the brand of hate on your forehead where everyone can see it? How would you like that black mark removed, Kenton?

Tell me, how would you like it?"

"I would love it," Kenton said, and he meant it.

"Well, Mr. Bancroft here knows a man who can do it! Don't you, Mr. Bancroft? That's what you said, isn't it?"

George nodded. "That's what I said. Of course, I can't be sure, because I only met the man once. But that's what he told me. I'm to work for him for three years. It's hard labor and he told me not to expect anything easy. But I'm to work for him for three years and then he removes the *S* from my forehead and I'm a free man. I'd break my back for *twenty* years for that. But just to work for three years, and then I'm free! Three years—"

"How about that, Kenton?" O'Keef demanded. "How about that? Valerie, your children won't have to be born and raised here in the hills. Kenton can work for three years like all of us, and he won't be a starman any longer. The black mark will be removed and he won't be a starman any longer. How about that?"

EVERYONE liked it. Everyone in the village loved it. They were so eager to believe it could happen that they took the unsupported word of this man, this stranger with the mark of the starman on his forehead. In a week George had won everyone over. In a week the whole camp had changed. For ten years they had been waiting and dreaming, as Kenton had been waiting and dreaming, for the time when the Sanction would be lifted and the great liners would rise again from the silent starfield. Then they would be there in their bright new uniforms, they would all be there, walking up the ramps two by two while the bands were playing, ready to take their people back into space again.

Now all that was changed. They didn't think in those terms anymore. Now they waited for the coming of the man who could remove the black mark from their foreheads, and then they wouldn't be starmen. They didn't want to be starmen—they had had enough, and now they waited for the man who could take the mark of their identity away from them.

The first day, Kenton tried in vain to reason with them. The black *S* told them clearly enough that George was a starman, a member of the *Altair's* crew, and they wouldn't believe Kenton. He gave up after a day, and even Valerie stopped trying after the second day. That night they went out to their hill and looked up to the stars and the Milky Way was a wonderful bridge to something better, if only they could reach it. Kenton wanted to grasp out with his hands and pull it down, he wanted to take Valerie out to the stars with him. Soon he would be waiting alone. If George had his way, he would be waiting all alone.

It was exactly one week after the arrival of George that Kenton heard the droning. It was a sound he had not heard in ten years, and for a moment he thought a starship was up there someplace in the sky. But then he saw the huge swarm of dots on the horizon and realized a fleet of aircraft was approaching.

The fleet came closer, and Kenton watched the starmen scurry about their camp. They didn't know what to do—in ten years they had not seen so many aircraft together, and they were close to panic. But soon the fear passed. George passed the word around, and Kenton realized that everyone was too excited to ask him how he knew. George had told them the man who could remove the black mark was coming.

Soon the swarm of gyro-planes

landed in the clearing, and the pilots came out. They stood in groups, uneasily, but one man walked boldly to the knot of starmen that had gathered about George and Brian O'Keef.

THE MAN WAS very big and very fat. Kenton had never seen such a fat man. The flesh hung from his jowls in great flabby chunks, and his round little eyes were deeply embedded. His clothing was beautifully tailored, but even so, his belly hung big and low over his belt.

George left the group and came over to him. "Mr. Atwell! You remember me, don't you, Mr. Atwell?"

Atwell considered, and the sweat clung to his face in big round beads. Then he nodded, and his loose jowls rolled up and down with the motion. "I remember you. I remember you vaguely. And I must apologize because I forgot your name. But I met you on the outskirts of the city once. Now, as you can see, I'm ready to start things on a big scale. All ready. Everything's set now, and I've come into the hills for the starmen."

Brian O'Keef approached him and stuck out his big freckled hand. "Name's O'Keef. I'm sorta in command here. We work three years for you and then you remove the *S*? Is that the pitch?"

"That's the—uh—pitch. That's exactly what I offer. But let me tell you now, it will be hard work. Three years of hard work. There won't be an easy moment."

"We don't care. We don't care about that." The blue eyes sparkled under the flaming red hair. "What we want to do is get rid of the *S*. You can do that, and we'll work for you. When can we start?"

Atwell smiled and his small eyes were lost in the closing pockets of flesh. "We'll start now. I have these aircraft here for you, and we'll leave

at once. Is that agreeable?"

Captain Harkness came forward. "We're starting at once, you say? At once?"

Atwell nodded.

"Larkin, have you the orbit mapped?"

"Yes, sir."

"Kenton, you're ready at the controls?"

"I'm all set," Kenton told him. "You can relax now, sir." Then Kenton turned to O'Keef. "Brian, I'm telling you for the last time that this is a trick. George, here, is not a starman. Valerie has known him all her life and he is not a starman. Once you work for this man Atwell, he'll have you. You'll never get away, because he'll know who you are. Even if he removes the black S, he'll still know who you are. It's a trick, Brian."

BUT O'KEEF waved him away with an impatient gesture, and now the starmen were filing into the gyroplanes. Two at a time they filed in, and they held their heads up and Kenton thought they could have been going back up the ramps to their starships.

Finally O'Keef said, "Well, Kenton, are you coming?"

"Of course I'm not coming! It's a trick. A low, stinking trick, and you're falling for it, Brian. Brian—"

"You're crazy, lad." And Brian had entered one of the airships.

George laughed in Kenton's face. George and a big giant of a man were alone with Kenton and Valerie now, and George laughed. "Well, Kenton, it looks as if you've lost."

There were tears in Valerie's eyes, but she smiled. "He hasn't lost, George. He hasn't lost. I'm still with Keith and we're together and you're the one who loses."

George flushed. The aircraft were taking off now, circling once, then

heading away. Soon only one ship was left on the field. George stepped forward and slapped Valerie's face.

She fell back, raising a hand to her cheek, and Kenton sprang at George.

"You always want to be violent, Kenton," he said. Then he shrugged and crooked his finger at the giant waiting behind him.

The man lumbered forward. Valerie screamed. Kenton set himself and then swung his fists. He struck the giant full in the face, and he hit him hard, but the man shook the blows off like water. Then he clipped Kenton on the jaw with one huge hand, and Kenton felt himself falling. He tried to rise, but he could not, as he sank to his knees he saw Valerie striking at George's chest with her small hands, and he saw the giant lift her and tuck her under his arm like a doll.

The three of them reached the last airship. Kenton lay on his back, and everything began to reel. The clearing spun like a top, and the last thing he saw was the airship circling about above it...

CHAPTER V

THE MAN IN THE SQUARE

KENTON WAS stumbling back through the hills. He hardly remembered getting up, but he remembered the clearing, now empty, and he remembered calling Valerie's name, but he couldn't be sure because his voice sounded so strange there in the silence. His throat was dry and he had gone down to the spring and drank deep of its cool waters, and he was hungry, but he didn't stop for food. He had no time. He had to get back to the city on the hill. The fat man Atwell must have come from the city on the hill. Other cities were far away, and he must have come from

the city on the hill.

It had taken Kenton and Valerie three days to get up and over the hills, but now in a day and a night Kenton was back at the starfield. He staggered to its edge and he wasn't surprised to find the ground car he had left at the foot of the hills. Few people came to the starfield.

He opened the door and climbed into the car and reached for the controls. His hands would not obey the orders of his brain. He slumped over the control panel and when he closed his eyes he saw Valerie's face and he thought he heard her scream.

He reached out but he could not touch her face and then he was sobbing her name and it mushroomed on his senses, driving everything else out. *Valerie....*

Kenton awoke with the sun in his eyes. He had reached the car at nightfall and now it was almost noon. He had not eaten in more than forty-eight hours and he was hungry.

He started the ground car and drove into the city. As long as he stayed in the car he was all right. No one would see the S on his forehead. The city hadn't changed. It was still small and crowded and at noon the throngs filled the streets. Kenton had a comparatively easy time driving because there were few cars. Not many people could afford them now.

Kenton found a cap in the car, a bright green plastic cap which he put on his head and pulled down low, and now he knew that unless one really looked for it, the S was invisible. He parked the car almost at the same spot where he had first taken it, and stepped out on the crowded street.

He saw the long line of weary people and learned that most of them were colonists. He stood at the end of the line as it moved slowly. When he reached the window a little old

woman with gray hair handed him out a bowl of soup and a plastic spoon, and he ate eagerly. It was one of the synthetic grain soups and it tasted good to Kenton, warming him all the way down. Kenton returned his empty bowl and walked on down the street.

He didn't know where to go. That was the trouble. Although it wasn't a big city, it was a crowded one, and he didn't know where to look. Valerie might be anywhere here, a needle in a haystack....

Actually, he could not even be sure that Valerie was in the city on the hill. Atwell had a large fleet of aircraft, and they could have come from any place on the continent. Kenton did not want to think of this possibility. He had no means of transportation, and he did not want to think of it.

SUDDENLY, he was in the square.

He had just gone on walking and his feet had taken him to the square. The first thing he noticed was that the statue was down. The great stone pedestal still stood and a little figure perched atop it, but the statue was gone.

And the square was crowded. He had been in the city many times and he had never seen the square this crowded before. The little figure atop the pedestal had the attention of the crowd. He was talking, but Kenton was still too far to hear the words. He did hear the angry restless buzzing of the crowd and he realized the people did not agree with the man on the pedestal.

There was something familiar about that figure, and Kenton came closer. Someone said:

"What do you think of that, friend?"

Kenton said uneasily, "I don't know. I just arrived in the city and I don't know what's going on. Who

is that man?"

"You got me there, friend. I saw the crowd and I came here to see what it was all about. I don't know who he is, and I don't like what he's saying. Something ought to be done about that. I think the guy's crazy. Listen."

Kenton listened. He still could not hear all the words, but he caught enough to know that the little man was talking about the starmen. He was saying that they were being unjustly persecuted, that they were the hope of the earth, that everyone had degenerated but not the starmen, and that if earth ever wanted to get back into space it had better realize which side its bread was buttered on.

Hoots came from the crowd. They were loud and it was an angry crowd and for a time Kenton could not hear the little man's voice. But there was something familiar about that bald-headed, bespectacled face. Kenton had seen it before. He tried to think where and for a time he couldn't. When he did it was too late.

Someone climbed up on the pedestal behind the little man and grabbed him around the waist. The little figure struggled, but he was helpless in the arms of the giant who held him and soon his legs were kicking as he was lifted off the pedestal.

The crowd surged forward, and Kenton was swept along in the tide. He did not want to see what would happen to the little man and he knew he could not help him, but the pressure of the crowd carried him forward.

They were pushing the little man back and forth and his glasses had been lost in the scuffle. He was panting and his arms were two thin little flails trying futilely to protect him. He tried to talk, but he was panting so much that the words would not come out.

SOON THERE was no room to push the little man, and somebody held him and shook. Other people tore at his clothing and Kenton found himself yelling a protest, but no one could hear him. He pushed forward on his own now—he had seen enough. He did not know what help he could be, but he wasn't going to stand by and let them tear the little man to pieces because he had befriended the starmen.

And then Kenton knew. *Befriended the starmen!* He remembered that day in the square, weeks before, when the mild little man was with him when the kids were throwing stones. The mild little man who stood in the clutches of the crowd because he still spoke for the starmen. Kenton did not know who he was, in fact he did not really care. He only knew that this was all wrong and that he could not let them do it and for one wild moment he forgot Valerie.

He tore into the crowd now, pulling them away from the little man, but no one bothered him. They simply thought he wanted to get closer himself so that he could go to work on the man who had no right to defend the hated starmen.

Kenton spun one man around roughly, and the big face glared at him. A blunt face, and Kenton recognized the man who had held him that day in the square. The man eyed him angrily, but Kenton still had on his cap and there was no recognition in the hateful eyes.

"Wait your turn, friend," said the blunt-faced man. "We all want to hit him. Just wait your turn."

Kenton could not do much against all those people, but he could steer the center of the mob away from the pedestal and toward one of the side streets. This was his plan and it was slow work. He saw the blood on the little man's face and the pathetic

gestures of defense the small arms were making.

Now Kenton was directly behind the little figure and he grabbed him under the armpits and pushed. The mob wanted to follow, wanted to stay with the man and beat him, and gradually Kenton made his way to the side street. Once he almost fell under the rush of the crowd. But he knew that if he did he would never reach the little man again, and the small figure would be beaten to a pulp. Kenton held on grimly, and he pushed and occasionally he struck out with his hands. But no one noticed—it was a wild crowd and everyone was swinging his arms to hit someone if he could get them clear for a moment.

Kenton sensed there was something more to this. He was not merely saving the little man, he was saving more, much more. He did not know why he thought this, but the thought persisted. He was thinking of the little man as a symbol, and that might be the answer. Only that didn't explain anything. He knew that if he rescued the little man he also would rescue Valerie, that somehow their three destinies were interwoven, and that the fate of the starmen might hang in the balance too...

THE FRENZIED faces were leering at Kenton as he edged to the side of the square, and twice he had to reach out with one hand and push those faces away. He pushed the little man into one of the side streets and the crowd tried to swell through it after them. But the press was too great and only a few people got through. An arm reached out and the hand clutched at the little man, but it missed and struck Kenton high on the head instead. He felt the cap torn loose and he tried to reach up and grab it, but he was

too late. Kenton's head was bare in the sunlight, and someone shouted in his ear:

"Starman! Starman! I'll be damned. It's a starman. No wonder he's helping the little guy."

There was a lot of noise and not many people heard him. Enough did, however, to make the situation a bad one for Kenton. Now the people who had pushed through to the side street with him were openly hostile, and Kenton found his way barred by a mob bent on stopping him and the old man.

Someone grabbed at Kenton's shoulder and wheeled him half about and a hard fist crashed against his temple. He felt his knees buckle. He did not know where the strength came from, but he picked up the little man and slung him across his shoulder, and then he ran. Feet pounded down the street behind him, and for a moment he was clear. Then faces appeared at the other end of the long, narrow alley and three men came plunging toward him.

They were less than a hundred feet ahead, and the mob was not half that distance behind him. On his left was a door, and, breathless now, he turned the knob and pushed. The door swung open and Kenton plunged inside with his burden. He dropped the old man down unceremoniously and he turned to the doorway. A man was halfway through it and Kenton lashed out with his leg and the man stumbled back, howling. Then Kenton slammed the door. It was a metal door with an old-fashioned bolt and he threw the bolt home. The fact that the door was of metal meant the house was one of the new ones which had been built hastily since the time of the Sanction, and what with the lawlessness in the streets, Kenton knew that the windows would be too high off the ground for anyone to

reach them.

He ignored the pounding on the door and turned around. The little old man was staggering to his feet. Behind him Kenton saw a woman.

CHAPTER VI

THE PATH TO THE STARS

SHE WASN'T very young, although Kenton decided that she once must have been pretty. Now there were lines in her face and her hair was partly gray. She seemed very surprised.

"What are you doing here?" she demanded.

Kenton smiled and said they were resting, and when the woman walked past him to the door he grabbed her arm and turned her around.

"Uh-uh," he said. "Definitely no. Stay away from that door and you won't get hurt."

"Just wait a minute," she snapped. "Who do you think you are? You come in here without knocking and now someone's pounding on the door—"

Suddenly she stopped. Her face turned white and Kenton let her arm go as she took a step away from him. She had seen the mark on his forehead. Kenton was smiling again. "Yes, I'm a starman. But don't worry, I don't bite and it isn't catching."

"Get out."

Kenton told her to sit down and she looked at him for a long moment, then moved over to a chair and made herself comfortable. Kenton began to walk around the room and the woman watched every move he made.

"Is there another way out of here?" Kenton asked.

"What do you mean, another way?"

"Another door. Anything. An exit."

"There's the roof. My husband is with the police and he has a gyro-plane, but it's not there now. When he comes back—"

"A gyro-plane, eh?" Kenton was thinking fast. He could still hear the crowd outside, but now the pounding had ceased. The voices carried and they were angry voices and he knew that soon they would bring a weapon and blast open the door.

"Anyone else in the house?" Kenton demanded.

"Um, no."

Someone yelled, "Mother. Hey, Ma—"

"No," said Kenton, smiling. "No one else is in the house."

"You leave my boy alone."

"Don't worry, lady. Not only don't we starmen eat people, we don't eat children either."

THETHE KID came in and he was about eight, short and too fat, with curly red hair and buck teeth. "Hey, Ma, I wanna—" And then he began to bawl. He had seen the little old man's beaten face and he saw the starman's mark on Kenton's forehead, and he began to bawl. He didn't stop, and it got on Kenton's nerves.

He shrugged and turned to the little old man. "You okay?"

"Well, I'm not exactly feeling chipper, young man, but I think I'll live—that is, if the mob doesn't get to me again. That's the trouble; it's been the trouble all the time. I really shouldn't, but I always want to make speeches. Say, don't I know you, young man?"

"We've met before. In the square, the day they were to take down the statue, remember?"

The old man said that he did and that he was glad to see Kenton again and that he had made up his mind about something. He was about to

say what it was, but then they heard a faint droning, followed by a gentle thud on the roof.

"That would be your husband," Kenton told the woman.

She jumped out of her chair and before Kenton could stop her she was running up the stairs to the roof. Kenton sprang after her in time to see her legs disappearing above him through the trap door. When he pushed the door open, the man who faced him was holding a gun.

It was one of the emgee weapons that had been developed just before the Sanction, and Kenton knew it as a deadly thing.

"Okay, starman," the husband said. "Okay, just march right back down those stairs and relax. Come on, move."

Kenton turned slowly and started down the stairs, the man right behind him. This was his last chance, the last chance for everything, and the cold tube of an emgee gun was a foot from his head. He could hear the kid, still bawling downstairs, and from above, the woman climbing down behind her husband. She said, "I'm proud of you, Harold. Really proud. A trouble-making starman right in our own house, and you've captured him—"

Kenton stopped suddenly, crouching. The small of his back hit against the man's knees and the man yelled in alarm. Then Kenton lost his balance and the emgee gun went off and he felt the ray burn past his cheek. Something heavy came down on his back and tumbling over and over, the man went plunging down the stairs. When he reached the bottom he lay still. Kenton called once to the little man and turned again to climb the stairs.

From above, the woman's foot kicked out and caught him high on his right cheek. Kenton stumbled and

nearly fell. His head reeled, and it seemed there were three women above him on the stairs, all getting ready to kick again. Kenton grabbed the foot of the middle woman and then everything came into focus again. He held on to the foot and the woman screamed. She sat down and put her head in her hands and began to cry and Kenton didn't stop to quiet her.

He stood on the roof and soon the little old man appeared through the trap door and joined him. They ran to the gyro-plane and climbed in. At first Kenton had the same difficulty he had had with the ground car those weeks ago, but soon the aircraft rose up from the roof. Kenton looked down and saw the crowd hovering around the door of the house, and then he raised the craft higher and gunned it away from the city.

IT WAS night and the winds blew in from the north over the star-field. Kenton stood on the *Deneb's* ramp with the little old man. "You know, I don't even know who you are."

"I told you once I am a tourist. That's the truth."

"From where?"

"From—there." He pointed up into the sky.

"How can that be? You're an earth-man and there's the Sanction, so how can you be from space?"

"I assure you, I am. One thing you forget is the fact that ten years ago, before the Sanction, there were three billion colonists. Three billion."

"You starmen brought them back. Or, that is, you brought most of them back. But some really wanted to stay. Maybe they foresaw what conditions on earth would be like when the population was doubled and the star-trade was ended, and they didn't want to go back. Not many, but some. Some hid out."

"So you—"

"Yes. I'm a colonist. There are several thousand of us, living mostly in the Antarian System. We've worked for ten years, and we have tentative permission to take earth back into space."

Kenton didn't say a word. He couldn't. He was suddenly choked up inside and no words would come out. Here was what he had been dreaming about for ten years; now it was a reality.

"I know what you're thinking," the little man said. "Well, don't be too hopeful. There are conditions. Any earthmen I take out into space must be worthy of it. I'm the delegate. It's up to me. If I take the wrong ones and anything happens, we're through for all time. This is the Interstellar Council swore. And all this rabble—they've degenerated in ten years. I can't take them. Who can I take up to the stars? Tell me that, who can I take?"

Kenton said, "You can take me. Me, Keith Kenton. You can take me. I'm a starman. You can take me and every other starman on earth. Almost half a million of us. We could lead the way back to the stars for earth."

"That's exactly what I've been thinking. I've felt it all along. It's the only hope. We can start with just one shipload. But we've got to work fast. Someone spotted me working on the *Deneb* recently—"

"Then it's the *Deneb* you'll take up?"

"Yes. I thought you knew. I came in a small ship, by myself, and it crashed near the ocean. I got out alive because it only was a slight crash, but my own ship is down on the beaches somewhere to the east.

"No matter, Kenton. The important thing is that we've got to go quickly. People have seen me tampering with the *Deneb*. It must have been a rare

accident that brought them here, but they saw me. That doesn't give us much time. I've repaired the ship and it's just about ready for flight. Get those starmen and we will start—"

KENTON BEGAN to laugh. He sat down on the ramp of the *Deneb* and kept on laughing. The old man shook him by the shoulders, but he couldn't stop him. Kenton roared.

"What's so funny?"

"Nothing. Nothing's funny." Abruptly Kenton wasn't laughing anymore. "Nothing's funny at all. But I can't get any starmen. I can't get any starmen at all, and if people from the city saw you they'll be here before too long to see who's tampering with the *Deneb*. It's a taboo now; it's against the law. The police will be here."

"Why can't you get the starmen?" the little man protested. "In the city they tell me that the hills are filled with them."

"Not any more. Not now. Somebody came along with a fantastic plan to get rid of the S brand on their foreheads in exchange for some kind of labor, and they all went with him. And they took my wife—Valerie..."

Then Kenton told him the whole story, all of it. When he finished, the old man sat in silence, rubbing his cheek thoughtfully.

"Some kind of labor, you say?"

Kenton nodded.

"In the city?"

"I don't think so. I came back to the city because I had no place else to go, but I don't think it can be in the city. Nearby, maybe, but not around here. The new influx of so much labor would be noticed."

The old man stood up. "Then let's go to sleep, Kenton. If we can get through the night without them finding us, we should be all right. No one will come out here at night; not

with all the ghosts that ten years of superstition have created. And then tomorrow we'll find your starmen."

Kenton asked him how.

"Not now. Not now. I'll tell you tomorrow. I want some sleep, Kenton—and you can use it too. Let's turn in."

But Kenton did not sleep. He tossed restlessly inside the *Deneb* all night, waiting for the morning to come. After the first elation over the prospect of going back into space had passed, he felt depressed. They could go back into space, *if* they could find the starmen—and there was absolutely no clue as to where the starmen might be....

Kenton knew that he would never go back into space without taking Valerie with him. Valerie of earth, Valerie who had never left earth, and Kenton the starman. His hopes, his dreams, must wait until she was back in his arms....

THENE AWOKE early and breakfasted on food the old man had stored within the ship. Kenton didn't feel like eating, but he knew he needed it and he put away a good-sized breakfast. When they went outside, it was raining. The rain was coming down hard and the brisk wind swept it in sheets across the starfield.

Kenton said, "Okay, what now? You said last night you had an idea. Let's have it."

"Relax, Kenton. Take it easy. You're too jumpy, and you'll need your nerve today. We should be able to find your starmen, and from what you've told me, there may be trouble."

Kenton shrugged. "We'll get to that when we reach it. First we've got to find them."

"That won't be hard. You don't think they're in the city, because so much activity would be noticed. I

agree. But you think they're nearby. Very well, we'll assume that, too. It makes good sense. Nearby, but not in the city—and we have a gyroplane. We'll find them. We'll fly until we see the center of a lot of activity, and then we'll find them."

It was that simple. It was that simple, yet Kenton hadn't even thought of it. It might be just simple enough to work.

The rain felt good to Kenton. It seemed to be cleansing the air. Dripping wet, they plunged into the gyroplane, and Kenton started the rotors. Soon they were in the air over the starfield, and, through the rain, everything below seemed gray and drab.

"It won't be easy to see anything," Kenton said.

"I know it. But the rain has an advantage, too. No one will be out to investigate the *Deneb* in this weather. It gives us another day, if we need it."

Kenton had an idea they would need it. Down below, he could see almost nothing through the rain.

It was mid-afternoon when the old man pointed toward the horizon with a finger that trembled. "See it, Kenton?"

Kenton looked. He squinted into the rain and the darkness. Off on the horizon, the broad circular area of light was the size of a one-credit coin.

"That would be it, Kenton. That would be it." The old man's voice was shaking.

They reached the area finally, and swooped low above it. There seemed to be no one out in the rain, but there were scores of tents and one long low building. And in the middle of the clearing, Kenton saw where the glow was coming from. It was a dull orange, almost yellow area—circular, about fifty feet across.

Kenton scowled. "If I didn't know it was impossible, I'd say—"

"What would you say, Kenton?"

"I'd say that was the launching pit for an old-fashioned rocket ship. But that can't be. Rockets haven't been around for five hundred years, not after the space-drive and then the hyper-drive. So how could that be a launching pit?"

"I don't know how, Kenton—and I don't know why. Only that's what it is."

THHEY BROUGHT the gyro-plane down and stepped out into the rain. There was no one in the clearing. It was a new camp; Kenton could tell by the freshly cut trees. But it was deserted, utterly deserted.

Kenton shrugged helplessly. They walked into the one building and found that it was a machine shop. Or it had been. Now it was stripped almost bare. At the rear they found a little office, but the only thing of interest there was a folder of bills. Kenton looked through it carefully and discovered that the material listed on them would be ideal for one of the old-type rocket-ships. Only it didn't make sense. That type of ship hadn't been used in over five-hundred years, and were so obsolete that it seemed incredible anyone would want to make one. Yet, outside, the slag still glowed in the blasting pit.

"I don't know," Kenton admitted. "I don't understand a thing."

The old man shrugged. "Look. It's a little late to tell you, I suppose, but my name is Wilton. It was Professor Wilton before I came on this mission to earth. I was a professor of logic at the remaining earth colony in the Antarean System. I've got a logical mind." He smiled. "At least I hope I have. So let's get organized in a logical way. Let's look at this thing clearly. Why would they

build an old-type rocket ship, and where would they go in it?"

Kenton considered. "Well, they'd build an old-type rocket because they couldn't build a new space ship."

"Hardly," said Wilton. "You forget that there's a whole field of them near the city."

"H-m-m. Well, if they didn't know how to operate the new type—?"

"Starmen? Ridiculous."

"I know. I know the answer now. They don't have fuel for a modern ship, so they had to build an old one."

"That's more like it." Wilton reached into his pocket and pulled out a little capsule. "Here's fuel for a space-drive and for a hyper-drive, in the new compact form. There's probably not another grain of it on earth; it all was destroyed ten years ago. I brought this with me from the Antarean System, and it's much more than enough to get the *Deneb* back there. But without any of it, that whole starfield of ships is useless."

"Like the old ocean ships without an ocean."

Wilton laughed. "Hardly a good analogy, but you get the idea. Now then, that's why they built the ship. All right: for what purpose did they build it?"

"That," said Kenton, "beats the hell out of me. I don't know."

"Well, maybe I do. The Sanction cleared earth out of space, you know. *But it didn't force us out of the solar system.* It never did that. And this man you mention—this man who promised to remove the black S for three years of labor—what sort of labor do you suppose he had in mind?"

"I don't know," Kenton said. "I don't know." They were on the track of something, and he knew it.

"Well, how about this? For ten years the human race has been earth-bound, and poor as hell. The standard

of living has fallen through the floor. Not enough jobs, not enough mineral matter to keep things going—”

“Yeah!” Kenton roared. “I see it! This Atwell has an idea. A potent one, too. He’d go back into space, into the limited space we have, and start to carve an empire for himself of the mineral wealth in the solar system. And all he’d need for that would be—an old-fashioned rocket-ship!”

“Precisely. And where would he go with his starmen laborers on the first trip?”

“Where? How should I know? The moon, Mars, Venus, the Jovian Satellites—how should I know?”

“He’d go to the moon. That’s closest, and he’d go there because it would be as good a place to start as any. He’d go to the moon, and he’s on his way there now. Even after the head start he’s got, we could beat him in the *Deneb*. We could get there first. Which is exactly what we’re going to do...”

CHAPTER VII

THE FIRMAMENT

THE BEAUTIFUL thing about these starships, Kenton thought, was the fact that they were almost automatic. You had to check the course and you had to check on little details. But when you were just hopping from one planet to another in the same system, it was a lark. The hyper-drive was different, of course. That was complicated, and you’d need a smoothly functioning crew to keep a ship going in hyper-space.

But now Kenton was ready in the *Deneb*, and he waited tensely beside Wilton as they prepared for the take-off. It brought him back to a day, ten years ago, in the Fomalhaut System—and he began to tremble. He tried to brush the thought from his mind and he could not. But then he

thought of Valerie, and he knew she was somewhere in space now, perhaps on her way to the moon in a new version of an antiquated rocket—and he forgot all about Fomalhaut.

“Ready?” Wilton demanded, and when Kenton nodded, the little man carefully emptied the contents of the small capsule into the tiny fuel chamber of the *Deneb*. The *Deneb* was a big ship, five hundred feet long and larger than any in the fleet except the *Arcturus*, Kenton knew, but that cylinder had enough fuel in it to take the ship to Antares and back. The old man had said so.

Wilton said, “What about the monitors, Kenton? Doesn’t the Council have monitors?”

Kenton shook his head. “They do, but it won’t bother us. We’re allowed freedom inside the solar system—out to a hundred million miles beyond Pluto’s orbit, and about a fiftieth of a parsec ‘north’ and ‘south’ of the solar equator.”

“How did they figure on those distances?”

“That’s easy. No captain would dare turn on the hyper-drive within that range, not if he cared what happened to the sun and the planets. And you can’t go very far in one lifetime without the hyper-drive.”

Then Kenton was busy at the controls, and the *Deneb* lifted gently from the starfield. It was hard to believe the ship held so much thunderous power within its walls. Kenton had always felt this way ten years ago and before, and he felt it now. The *Deneb* hovered above the field for a moment, a great metal dart there in the rain, and Kenton wondered if anyone from the city saw it. Then he opened up the space-drive and suddenly the view of the starfield and the city was gone.

Kenton leaned back and relaxed. “We’ll be on the moon in thirty minutes,” he said. There was a tightness

in his voice which he could not control. He was in space again. It was only a leap of a quarter of a million miles, a merest fraction of an inch by celestial reckoning, but he was in space again. He looked out at the stars—bright, steady pinpoints against a velvet background—something you never saw through earth's obscuring atmosphere. And his thoughts were of Valerie....

HE PUT the *Deneb* down on a great flat expanse of pumice not far from Tycho's crater. And then the long watch began. The half-hour's flight was as nothing. Looking back on it, Kenton hardly had been aware of the leap across space at all, but now he could see the huge crescent of earth in the sky, pale blue and green and gray, and he kept his eyes at the scope. He wouldn't sleep until Wilton forced him away from the scope almost bodily, and then only when Wilton promised his own eyes would be glued to the instrument until Kenton awoke.

The moon was a wild dead place, but Kenton had seen too much of space to be thrilled by it. The fact that he had left earth was exhilarating in itself, but without Valerie he knew he could not appreciate it.

It was Kenton who saw the rocket on the second day. It was a tiny black dot against the bright globe of earth, invisible through the unaided eye. He shouted to Wilton, he pounded him until the little man awoke, and then he cried:

"See, Wilton? See? The ship! I'm not wrong, Wilton, am I? You see the ship, don't you? Look—"

Wordless, Wilton took the scope and peered within. He straightened and nodded his head. "It's the rocket, all right. How long, Kenton? When will it be here?"

"That's hard to say. About a day, I think. Twenty-four hours. Maybe

sooner. I can't be certain."

Hours later, they could see the rocket easily without the scope, and soon after that the little black dot disappeared in the southern sky. Kenton took the *Deneb* up, and they could see the black dot to the south, breathing fire against the yellow pumice of the moon.

Then the rocket was down. Kenton saw the fire belch from its fore-tubes, and he saw it land.

"They'll get the surprise of their lives," Wilton said. "The last thing they will expect is another spaceship."

"Exactly what I figure, and the sooner we get there, the more surprise there'll be in our favor. I'll take the ship in, and you get a couple of spacesuits ready. You might check and see if there are any emgee guns in the supply room, too."

"I already have. There's a whole arsenal back there, Kenton. I'll be back in a moment."

The rocket had landed near one of the old abandoned earth bases on the moon, and as Wilton returned, Kenton brought the *Deneb* down a few hundred yards away, on the other side of the silent dome. Men were back on a foreign world after ten years, and Kenton felt a sense of exhilaration.

He got into his spacesuit. After all these years, it felt cumbersome, but the emgee gun in his hands gave him confidence. He opened the airlock and moved along the narrow tunnel ahead of Wilton. A moment later the outer door swung in toward them, and Kenton stepped out onto the surface of the moon.

The mechanism of his spacesuit quickly adjusted gravity to earth-norm, and he made his way around the edge of the glassite dome, Wilton following.

Ahead was the rocket, and Kenton began to run toward it. It was an incredibly small ship compared with the

Deneb—not more than seventy-five feet long and half as wide, a bulky ponderous ship for its small size, resembling the pictures of Twenty-third Century rockets Kenton had seen.

They stood at the rocket's airlock door, waiting. Kenton leaned the fish-globe headpiece of his spacesuit against the hull of the ship, and presently he heard the hum of machinery which told him the lock was opening. He could feel his heart pounding, pounding so hard against his chest that it made him dizzy. The door swung in.

Kenton leaped in behind it.

THREE SPACESUITED figures stood in the narrow metal tunnel, staring open-mouthed at Kenton. Through the fishbowls he saw the three faces turn white, and then one of the men darted back and was pounding on the inner door. Kenton saw the outer door start to close, and Wilton got in just in time. Then the inner door swung open, and Kenton and Wilton followed the three men into the rocket.

With one hand he held the emgee gun on them, and with the other he took off his fishbowl. The air in the rocket was stale, but Kenton did not mind. Ten feet away stood Valerie.

She cried, "Keith! Oh, my darling!" Then she was in his arms and Kenton hoped Wilton would be holding the men off with his own emgee gun. But he didn't care. He could not feel Valerie's body against him through the bulk of his spacesuit, but her lips were soft on his, and that was enough.

George Bancroft had been one of the spacesuited men, and the whiteness of his face remained under the Black S, but now it was the whiteness of rage. "Kenton," he growled. "Kenton..." The sound came out through clinched teeth.

Kenton herded them out of the

rocket. He herded every last man out, and the very last was the huge figure of Atwell. His spacesuit was a special one—an ordinary suit would not have fitted his great bulk. He glowered at Kenton without speaking, but Kenton had never before seen such hatred in one pair of eyes—eyes small and almost hidden in folds of flesh.

It was easy. Kenton sensed that it was too easy. The starmen, of course, were happy after their initial shock, and flame-haired Brian O'Keef pounded Kenton on the back wildly after Wilton had told his story. "Back to space, lads," Brian kept mumbling. "Back to space..."

Kenton was too busy to listen. Jenkins and Larkin piloted the *Deneb* back to the starfield near the city on the hill, and Valerie was in Kenton's arms all the way back to earth.

THEY LANDED in the field with hardly a bump, and through the port Kenton could see the throngs of people outside. The *Deneb* had been missing from its place on the field, and the people had seen it returning.

Atwell snickered. "What now, Kenton? Go out there and they will kill you."

Kenton laughed. "Who's going out? I'm not. You and your men and George Bancroft are going out, but the rest of us remain. We're going into space."

Kenton had become careless. Half an hour ago, on the moon, there had been no resistance, and now he no longer held his emgee gun. Atwell reached into his jacket quickly, so quickly for all his size that Kenton could not stop him. When his hand reappeared it held an emgee gun. "That's where you're wrong, Kenton. March."

Atwell prodded him with the gun, and Kenton stood up. With Atwell behind him, he moved toward the air-

lock. He heard Valerie call out, but he didn't turn to look back at her. He had been so near to everything he wanted—so near but not near enough. The taking of the *Deneb* was the violation of a taboo which would bring the death sentence—if not legally, then at the hands of the crowd. Not for Atwell, no. Only for the starmen.

"Just you," Atwell purred. "You're the only one I want out there, Kenton. I'll need the rest of them on the moon, after I convince the government how we can put the starmen to work for us in the solar system to make earth rich again. But not you, Kenton. You won't be there. You deserve something else. Now, march."

Kenton marched, and he was aware that George Bancroft was beside him, flanking his right side as Atwell flanked his left. George said, "You see, Kenton, you didn't get Valerie after all. She may not know it now, but she's mine."

Kenton struck out with his open hand and hit George across the mouth. The blow jarred the big blond man, but before Kenton could follow up his advantage, Atwell clipped him across the base of his skull with the emgee gun, staggering him. Valerie ran to him, crying his name, but George pushed her violently away.

The airlock was open now, the ramp extended, and still there wasn't a sound from the crowd.

And then the sound came up in a mighty wave. "Starmen!" As one, the people surged forward. They had been on edge, Kenton realized, ever since the *Deneb* was gone—and now that it had returned and two out of three of the first men to emerge had the black S on their foreheads, that was too much.

The mob reached the foot of the ramp, and George, still smiling, pushed Kenton forward, saying, "Here's your starman. Take him." No one heard

him, and he said it again, this time roaring the words above the growl of the crowd. "Take him!"

"Starmen!" It came again from the mob, and now a stone struck George's shoulder. He winced with pain and looked surprised. Then he understood and he put his hand to his forehead and screamed. "No!" he cried. "No, wait—"

More stones came, some of them striking Kenton. He staggered for a moment at the edge of the ramp before pulling himself back. Atwell had lost all control. The emgee gun was still in his hand, but it was meaningless. He stood there on the center of the ramp, and sweat oozing out in ugly beads on his face. Kenton shoved him and he fell and rolled down the ramp. Eager hands caught him at the bottom, and Kenton heard his screams above the noise of the crowd. The people from the city had seen the black S on Kenton's forehead and they saw one on George's, and they had assumed the *Deneb* was manned entirely by starmen.

Kenton turned and stumbled back up the ramp, a score of people clamoring at his heels. One reached out and Kenton heard an insane laugh. "I'm no starman!" The voice was sobbing through the laughter, and he knew it was George.

Eager hands helped Kenton back into the lock and slammed it shut. George was still outside, and through the port Kenton could see him clutching with his fingers at the black S which would not come off his forehead. From within the ship, a lever lifted the ramp and everyone outside rolled off. George was lost in the crowd as the *Deneb* rose up from the field.

THEY MADE one more stop on earth. The *Deneb* was lowered again on the other side of the starfield, and Brian O'Keef forced

Atwell's men out. They didn't mind at all. They were only doing a job and they were paid for it, and now that their leader's plans had backfired, they wanted no part of the ship and its crew.

They were in space again. The starmen were singing, O'Keef and Larkin and Jenkins and Finer—the whole rollicking crew of them—a hundred men and a girl, blasting off for the stars again.

O'Keef's baritone was louder than the other voices, and Kenton could hardly hear Wilton as the little man spoke. "When we reach the range of the monitors, I will contact them. I am expected and we can get through.

There will be a lot to do, Kenton. A lot to do."

"Yes," Kenton said.

"We must go out and show the galaxy that earth is ready now. And in time we will return for the rest of the starmen. In time. In a century or two, perhaps earth's billions can be taught to go into space again."

"Yes," Valerie said.

"Yes," Kenton said absently. "But it's a long way to Antares, too. A long way, and I hardly know my wife."

"Yes," said Valerie, and she took Kenton's hand and they walked down the companionway together....

THE END

STELLAR WALKIE-TALKIE!



By H. R. STANTON



TH E MOON ROCKET tantalizes us endlessly it seems. It's always talked about, but like television ten years ago, "it's just around the corner." Be patient—it's in the cards. The rocket motor still is the big bug and they haven't got it licked—yet—but they will—sooner than you think. Meanwhile, every other phase of space flight is perfectly under control. Let's tick them off.

Air, food and water are no problem at all. The close cycle system which has even been tested in submarine research has proven entirely practicable. The rocket loaded with suitable plant life can absorb all the carbon dioxide given off by lungs and supply all the necessary oxygen. The closed cycle for water will be very similar—and food can be carried in sufficient quantity. Okay—that's taken care of.

Astrogaition has been completely solved. Maneuvering, stellar observation, position location—all these things are strictly cataloged. They offer not a single problem.

Acceleration has been studied and completely understood here on Earth by using huge centrifuges which accurately simulate that effect. Incidentally with a properly designed rocket motor acceleration won't be much of a problem at all.

Weightlessness, lack of gravity is still not experimented with very well, though from what we've learned from free-fall, that too doesn't seem to be much of a problem.

And now comes news that communica-

tion has been pretty well licked. A number of prominent scientists, including Doctor Wernher von Braun, the designer of the V-2, have studied the aspects of radio transmission over long distances. It is perfectly possible using the latest in radar pulse equipment along with directional beam antennas, to send intelligible radio signals across the orbit of the Solar System, using as pick-ups of course, hyper-sensitive radio receivers capable of detecting the rustle of microbe's paedopod!

This type of radio communication called "pulse transmission" relies on the overloading, for a brief time, of a conventional transmitter. Since this overload is of very short duration occurring though many times a second, the transmitter isn't burned out. And the effect of "peaking" like this is the equivalent of using a transmitter of many thousands or even tens of thousands of kilowatts of power.

Radar experiments with the moon, the use of these peaked transmitters and general theoretical radio study have proved that the operators of a space ship will be in communication with the Earth at practically all times and all distances. This has bothered some who imagined that the enormous spacial gaps couldn't be bridged with today's tools. We know now that's not the case.

Well, nothing remains. Can't somebody shove the rocket motor designers into action? We're getting tired of waiting—please hear our plea—Damn it!

AROUND SHE GOES . . .

By MILTON MATTHEW

THE GIGANTIC prolate spheroid that is our Earth, spins her majestic way through the heavens, unperturbed by trivial happenings on her surface. If any thing is immutable and unchangeable it is the ponderous whirl of the planet around its axis...

Oh year!

Dr. Munk of the Institute of Oceanography has discovered a force on Earth which changes the speed of its rotation! And the cause is a simple humble one. The rising of sap in plants and trees and grass and their growth in the springtime shift the weight—enough of it—outward from the Earth's center to cause the Earth to slow down—making the day twenty millionths of a second longer!

When you think about this particular phenomenon, it is really not so startling after all. It depends on a scientific principle called the "conservation of angular momentum". That's a complicated way of saying that the speed of a rotating body with a given kinetic energy is dependent upon the distribution of matter in it. Thus

when grass grows and sap rises in the countless numbers of plants all over the world, millions and millions of tons of material shifted farther from the Earth's center. Consequently, the planet slows down and the day lengthens.

Purely from a hypothetical standpoint—and as a plaything—Munk has calculated that if all the automobiles were gathered at the North Pole and raced southward to Mexico, when they arrived the day would be two billionths of a second longer than the day when they left! This is of course true, for the same reason as the growth of plant life. Mass has been shifted farther away from the center of the Earth. The Earth is a little flatter at the poles than at the equator.

From these interesting and amusing facts, it can be seen that mankind actually stands a chance of effecting a change in the Earth. He's doing so much technologically, that it would not be surprising if he caused some change in staid old mother Earth. God knows, he's trying hard enough with his atomic science!

THE DUPLICATE BALANCE

By WALTER LATHROP

THE STUDY of calculating machines has brought forth an interesting and intriguing concept, about the human brain. It's a well known fact that the study of calculating machines has accelerated the knowledge accumulated about the mind, but, it is surprising how detailed this may be.

When the first calculating machines were built—this applies to the electronic rather than the mechanical—a very tough problem was encountered. How could you be sure the answer given by the machine was right? After all, when a gadget uses thousands of parts, it just takes one wrong or faulty electronic tube to throw the works out of kilter—and to deliver the wrong answer. Repeating the problem wouldn't help either if the fault still remained because you'd get the same wrong answer. What to do?

The answer is surprisingly obvious. Build two machines identical and run the same problem through both. Then the same answer should come out. If they don't, one is wrong. To do even a better job, build three identical machines and give them the same problem. This time you'll even find out which apparatus is wrong!

As the idea was mulled over, some came

to the conclusion that this is how the brain works. It runs the problem through the mind in triplicate and comes out with two same answers—if not, it goes back and checks. And it seems a perfectly reasonable hypothesis because the ten thousand billion brain cells have capacity and more to spare for the job.

Doing the same thing with electronic calculators of course is another matter. The machines are costly enough without building them in triplicate. But certain key sections can be built in duplicate, and since the chances of similar parts breaking down at the same time are extremely remote, it is a safe bet that you'll come out with an answer you can rely on.

The principle of "duplicate balances" one working in parallel to the other is not a new idea but its application and extension are. It has proved itself. Perhaps we shall see in the future this idea applied to homely familiar things. Already in factories where critical relays must not fail two or more are put in parallel. There's no chance then that both will go at the same time. It may seem a little wasteful of energy and parts, but, if Nature can do it, so can Man!

WHO'S THAT

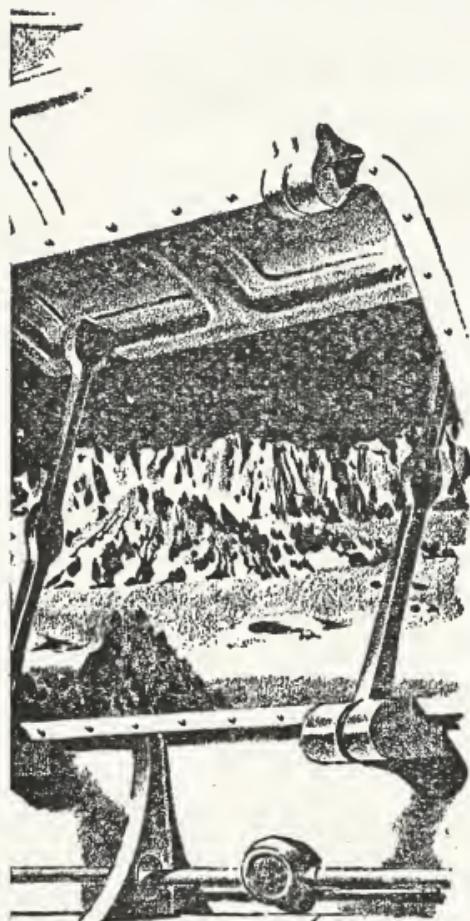
"Nancy!" he cried. "For God's sake, darling, put down that knife! You don't know what you're doing!" But his wife seemed not to hear the words; she drew back the weapon and struck at his heart



KNOCKING AT MY DOOR?

By S. M. Tennesham

He was a little old man, living on a world where no life could exist. But from him Johnny found that Death has many forms!



THE STARSHIP *Bliss I* came out of hyper-space with a snort from its rocket-engines and a charge in the glow of the stasis field from blue to amber. Satisfied, Johnny Cartwright turned away from the instrument panel and looked at his wife.

"See?" he said. "I told you there was nothing to worry about. We're out of hyper, and the engines are purring like a litter of kittens. You rustle up some food, hon, and by the time we've eaten, we'll reach Deneb."

Nancy smiled. "Well," she said, "I still think this was a queer idea for a honeymoon. Who ever heard of galavanting across six hundred light years of space just to say we did something different? What's wrong with Proxima?"

"Oh, there's nothing really wrong with it," Johnny admitted. "But everyone goes there. Or else they visit Sirius III for a stay at the health-baths. Almost like the old days of Niagara Falls."

"Niagara Falls? Where's that? Fomalhaut?"

"No, hon, it's back in Sol System

someplace—maybe Mars; I'm not sure. Anyway, it was too damned conventional. Everyone went there. And today it's Sirius III or the Proxima System. Not this boy."

Johnny strode across the small control room to the viewport. He frowned. This was mighty peculiar, he thought. They certainly should be nearing Deneb, yet...

"C'mere, Nancy," he called.

The girl came and rested her hand lightly on his shoulder. "What's up?"

"Nothing—maybe. Just look outside and tell me what you see."

She looked. "Why, a star. And awful close, too. What's wrong with that? You said we'd be reaching Deneb soon."

"Sure, sure. I know. Only that star isn't Deneb."

Together, they watched the star draw closer and closer. Once, Johnny checked the instrument panel, and he said: "Velocity's increasing."

Nancy shook her head. "Now, how can that be? We're still half a billion miles out."

"I know. So that indicates a strong gravitational pull, much greater than Sol's."

"How can *that* be? Look how small the star is at this distance."

JOHNNY scratched his head. That was true—the apparent disc of the star was no bigger than a pea held at arm's length, yet the dial now showed four and a half hundred million miles and a grav-pull many hundreds of times greater than the sun at the same distance.

A small star. Nancy was right. An incredibly small star with a pull of six or seven hundred suns.

"Okay, then," Johnny decided, "it's a white dwarf. If I remember my astronomy, the atoms are stripped of their electrons or something, and the result is matter under terribly high

pressure. It weighs maybe a couple of hundred tons per cubic inch—"

"But there aren't any dwarf-stars near Deneb, dear. So we're lost. Something was wrong over in hyper-space before, and I knew it." Nancy scowled a little, and Johnny didn't have to be a mind reader to tell she was thinking of the nice, comfortable health-baths on Sirius III. She said, "So where are we?"

"Search me," Johnny said, but then he brightened. "Hell, all we have to do is turn back over to hyper-space and shoot for Deneb again."

"Well, better do it fast, because our velocity's increasing all the time. They tell me those dwarf-stars are hotter than Hades. And do me a favor."

"What?"

"When we get back to hyper-space, why don't you shoot for Sirius instead?"

Johnny smiled and began to do things to the instrument panel. Then he settled back comfortably to watch the stasis field switch from amber to blue.

Only it didn't. It remained amber, and the dwarf star grew bigger in the viewport. An alarm bell rang its warning and the automatic temperature control began to hum. But Johnny knew it had a definite capacity, and that capacity would be reached and bypassed in another few moments.

"Well, what are we waiting for?" Nancy demanded. "I'm well-done on this side already."

Johnny realized she did not know the situation was serious. And she might well be broiled alive before she knew it. He adjusted a series of dials on the panel again and waited. Now his hands trembled and sweat made his fingers slippery. The amber glow did not waver, and Johnny began to hate the color.

In the viewport, the white disc began to dance crazily. Buffeted by the

opposed forces of the rocket-engine and the tremendous grav-pull of the dwarf-star, the *Bliss I* protested by bucking and leaping. Johnny pressed a stud and put the starship in reverse, watching with momentary satisfaction as a dozen crimson columns belched out of the fore-tubes.

But these did nothing except to check their acceleration. The dwarf-star still held them in an inexorable grip. Johnny tried banking, but, angled half away from the star, the ship still plunged toward it like a lopsided teardrop.

"It's no use," he said, and his voice was a hoarse whisper. "We're caught good."

Nancy studied his face and then pouted. "Serious, Johnny?"

"Can't get loose, kid. I've tried everything, but we're pulled closer all the time."

"Then—then—"

WORDLESS, Johnny nodded to the unspoken question. He took his wife in his arms and held her, stroking her hair with his hands, conscious of her tears on his neck. "Johnny," she said, "I'm afraid."

Gently, he pushed her away. Although he knew it was hopeless, he'd have one more try at the hyper-drive. The heat came in close from all sides and Johnny could breathe only in great tortured sobs. He was thankful at least for the fact that it would be quick.

Nancy laughed a little. "It feels—almost—like the health-baths on—Sirius III."

Johnny tried the hyper-drive, with the same results as before. In the viewport, the white disc spun and dipped and jerked more crazily than before, but of course, with the protection of the stasis, Johnny felt nothing. That was perhaps the worst part of it: twisting and jumping and bounc-

ing on two opposed forces, the *Bliss I* hurtled starward, but from within it felt perfectly stationary.

Something round and dark bounced into view momentarily and then was gone when the ship dipped again. Johnny ran to the port and looked out, but now all he could see was the swelling white disc of the star. Had his senses been tricking him?

If they hadn't, then a planet had swept in and out of his range of vision. A planet!

It came again, and this time Nancy saw it too. A moment it hovered, then it danced up and down and the dwarf-star shifted to a corner of the viewport.

Johnny checked his dials. Grav-pull still centered predominantly on the star, but the needle wavered every moment or two toward the planet. But the pull from that direction was weak. Apparently the planet had been captured from another system by the dwarf-star—it was not composed of the same stripped, impossibly heavy material. Then maybe it could harbor life, at least until the hyper-drive could be repaired. That is, if they ever could reach the planet.

Johnny slammed home the left-bank of rockets and hardly dared to look. Slowly, the white disc fell away beyond visibility and the darker one came to occupy the center of the port, rocking back and forth slowly like a kid's toy balloon. It grew larger every moment, but the awful heat did not abate. Johnny could hardly breathe, and what he saw now swam before his eyes in a mist.

The surface of the planet rocketed by below them, and he had a momentary glimpse of great, desolate smoking rock, pitted and marred by craters and gulleys, gleaming with an occasional spot of incredibly white substance which he knew to be molten metal. In another moment, this passed

from view. Actually, the difference wasn't much, but the steaming, smoking vapor was gone, as were the molten pools. This could have been a second Luna, except that they were unguessable light years away.

More terrain sped by as the *Bliss I* rocketed in closer to the planet, and Johnny now saw a frozen world of jagged, twisted, impossible contours. He played the firing studs carefully—one wrong move might sweep them out of the grav-pull of the planet, and they'd never have a second chance. It would all be much simpler if he could drive the burning ache from his lungs and the stinging sweat from his eyes.

Oddly enough, he found that his brain worked very lucidly. It was as if the torture of his body stood walled off from his intellect, and, by the creation of that wall, his intellect had been strengthened. He realized—and was sure of his realization although he knew it for a snap judgment—that this world didn't rotate on its axis, or rather, that it rotated on its axis once in every revolution about the star, always keeping the same side starward. Parched and steaming rock covered one side of the planet like a rotten shell, while the other side's bleak and massive contours hid under a shroud of frozen whiteness. A thin strip of land—perhaps half a hundred miles across—circled the globe as a barrier between the two, neutralized on the one hand by the cold and on the other by the heat.

And here in this twilight strip lay possible salvation. Sensing this, Johnny rocketed around the cold side and nosed the *Bliss I* down when they came upon the neutralized area on the other side. At first he thought they had overshot the mark, but he couldn't be sure. He hardly could see at all and the heat beat down upon him because the ship had not had sufficient time to cool. He was aware of

Nancy sinking slowly to the floor, and perhaps she moaned a little, although the drumming in his ears could have been deceptive.

And then the *Bliss I* struck hard and bounced and then it slid along on its belly like a limbless Antarean amphibian and Johnny's world dissolved before his eyes in a burst of chaotic light....

COLD WATER splashed in Johnny's face and then he felt Nancy's lips against his. He opened his eyes and blinked. Then he laughed when he saw how the heat had made Nancy's make-up run all over her face. But now it was cool. He could feel the coolness in the air and all around him, and he sucked it in in great gulps.

"My hero," Nancy said. "We've arrived, dear, but I'm afraid it's not Deneb."

Johnny nodded. "Nuts to Deneb, kid. When I repair the hyper-drive, we're scooting out of here straight for Sirius, and that's a promise."

"Posh. Those health-baths will be just a bit too hot for me now. Unless you'd want to go to Sirius VIII. There's skiing there, you know."

"Nope. I've had enough activity for —now what the hell is that?"

It came again, a strange knocking sound against the hull of their ship. Briefly, Johnny found himself wishing they had a weapon of some sort. But that was silly—this knocking could have been caused by almost anything, and his expectancy of something hostile seemed unwarranted.

Except that Nancy must have felt it too. She said, "I don't like it Johnny. Something's lurking—"

"Oh, don't be silly." One of them had to show assurance and confidence in this forsaken spot. "It may just be some loose rock, or, if it is life, why should it be dangerous?"

Again the knocking sounded, louder

and more urgently this time.

"Forget it!" Nancy cried. "I'll fix us a meal, then you can get to work on the drive. But forget it."

"Yeah, sure. Probably be a couple of days finding the trouble, and meanwhile that knocking won't let us get much sleep. And I'd get indigestion too—even if you are the best cook in the galaxy."

Johnny took three steps and stood at the airlock. He paused a moment, but then, when the knocking came again, he made up his mind. They certainly couldn't ignore it. There was something ominous about the unknown.

He pulled a switch and heard the outer door of the lock slide open. He waited. And then he heard it—a dull clomping sound *inside* the airlock.

"Please, Johnny, don't open that other door!" Nancy cried.

JOHNNY looked at his wife and was surprised at the fear in her eyes. But he did feel some uneasiness himself, an intangible awareness of something amiss, a throwback to the time his ancestors feared darkness because it harbored the unknown. And more—the sensing of something utterly alien made the little hackles on the back of his neck stand up, and his heart began to thump too loud.

And the knocking came again, this time inches from Johnny, on the other side of the magnasteel door.

"Don't open it, Johnny." Nancy reached for his shoulder and tried to tug him away. But he brushed her hands off and pulled the lever which closed the outer door. Now it stood within the ship, waiting for Johnny to open the inner door.

The knocking came again.

Johnny's hand began to tremble, but he pulled down the lever and watched the inner door slide into the wall.

Through it came a man, a little old man in faded gray trousers and a plastalloy shirt. "Howdy, folks," he said. "Thought you'd let me freeze out there. A mite cold, you know."

"Yes," Johnny replied, "yes, I imagine it is." But he hardly was aware of his words. A man—here!

"If you have some food and something warm to drink," the man said, "I'll be on my way."

"Your way?" Nancy spoke for the first time. "Where?"

"Oh, here and there. Heh, heh."

He stood no more than five feet tall, and he seemed the most harmless little guy Johnny had ever seen. He couldn't have weighed more than a hundred pounds—all skin and bones, space-bronzed and leathery, with eyes that held a laugh latent in their depths and a mouth which wrinkled up at the corners.

But he smelled. Johnny caught the odor first, but then he saw that Nancy did, too, because her nose crinkled, and then he could tell she was afraid again. It wasn't an offensive odor. Nor was it pleasant. But because of it the hackles on the back of Johnny's neck remained stiff, and when he closed his eyes he saw the awful depths of space more clearly than he ever had seen them before. It was an alien odor.

Yet the man was incredibly human. You might see him working in a field all the way back on the old Earth, and never pause to look twice.

Nancy tried to draw him out again. "Have you been here long, Mr.—uh—"

"Well, yes'n no. Heh, heh—it depends on what you mean by 'long', ma'am. I've been around considerable. Yes'm, considerable."

ALL AT ONCE, Nancy was busy-ing herself with her pots and pans in the little galley, and Johnny found himself alone with the stranger.

He didn't like it: the interior of the *Bliss I* measured forty feet by fifteen, yet once again he felt the touch of deepest space.

The little old man was talking. "That's a right nice female you got there, young feller. New one?"

"We've been married a week," replied Johnny. "Planned to spend our honeymoon in the Deneb System, but something went haywire in hyperspace, and we wound up here. Almost got broiled by that white-dwarf, too." Johnny really didn't know why he was saying all this, but it made him feel less conscious of the odor and the fear if he talked. "But what on Auri-gae you doing out here like this? Ship crash?"

"Not 'xactly, young feller. You see, I live here."

"You live—*here?*" Johnny gestured outside the port at the harsh contours of the rock on which the *Bliss I* had landed.

"Yep. Always have. But can't say as I always will. It ain't a very friendly place. No one but me. It gets mighty lonely sometimes—especially when them cold winds start to blow in from the frozen side. Son, you should see this place, then. Awful."

Garrulous old gent, thought Johnny. And perfectly normal, like any spaceman you could meet at a star-station bar, if you ignored the odor and the impalpable suggestion of menace.

"Know anything about hyper-drive?" Johnny asked. "Ours is off the beam somewhere, and I thought maybe you could give a hand."

And then he stopped. He had been trying to draw the old man out, as Nancy had, but instead, he found the reverse to be true. He wanted to talk; he'd tell the old man anything if he had been asked—yet he felt, oddly, that he already knew whatever Johnny could tell him.

Nancy came in with a tray of steam-

ing food, and the three of them sat down to eat. Johnny realized for the first time that he was really hungry, and he dug into the food with gusto. But half way through, he stopped. He put his fork down. He was hungry, but he didn't feel like eating.

His wife had done the same thing, but, humming to himself, the old man kept right on eating.

Johnny asked, "Aren't you hungry, hon?"

"Yes. Yes, Johnny, I'm hungry, but—but I don't feel like eating."

Johnny didn't answer her, but he knew he felt the same way, and he didn't like it.

The old man finished his meal and wiped his mouth with the back of one hand. Then he got up. "Sorry to eat an' run, but I think I'll be on my way now."

He stood near the inner lock door, waiting for Johnny to manipulate it. "But don't worry, folks, I'll be back. Yessir, I'll be back to see you folks. G'bye now."

Wordless, Johnny pressed down on the lever and watched the door slide open. Into the lock walked the little old man, and he waved as the door slid shut. Then Johnny pressed the other lever and heard the outer door opening. A moment later he stood with his arm around Nancy's waist, watching the little figure retreat among the outcroppings of rock. Once the man turned and waved, and soon after that he became a tiny dot that disappeared into the long shadows of the twilight world.

"**N**Ow what the devil do you make of that?" Johnny demanded. "The guy comes from nowhere, eats a meal, and walks right back out to nowhere again. And did you notice the—smell?"

"Yes, I did. Maybe that's what made me afraid. It smelled like—like

death, Johnny, without the decay."

By Andromeda, Johnny thought, that's what it *did* smell like—death without the decay. And that's why he had those strange glimpses of infinite space. The void of death without decay.

"Well, he's gone now, hon. Why don't you finish eating?"

Nancy shrugged. "I don't know. I just don't feel like it."

Johnny frowned. His stomach called for food: he could hear it growling occasionally. Yet he didn't feel like eating, either. Well, new worlds can do queer things to the metabolism temporarily, and the best thing to do would be to forget about it. He said, "I wonder what this world is like? You know, we probably could go out and explore, since that old guy lives here."

"Why don't we check the instruments first?" Nancy said, but Johnny suddenly had a foolish impulse to open both lock doors and tear through the passageway to the outside. He fought it down and felt fine beads of perspiration form on his forehead. That had taken effort!

He looked at the instrument panel. "Here are the readings, kid. Grav-pull, .97 normal—"

"Sounds good."

"Yeah, it does. Temperature, minus five Centigrade. Kinda chilly, but not impossible. Atmosphere—" His voice trailed off.

"What's the matter, Johnny?"

"*There isn't any!*"

"Huh?"

"None at all—no atmosphere. The outside of this world is as near to a perfect vacuum as space itself. And that guy's out there. We heard him come and we saw him go. He doesn't breathe, Nancy. *He doesn't breathe.*"

THEY STOOD there for a while, not saying anything. Then Nancy

got up and began to clean the dishes. Johnny didn't want to talk about it either; he suddenly didn't want to talk about it at all. He wanted to sleep. He was so tired he hardly could keep his eyes from closing. He just wanted to sleep—and more than sleep. Once more he had a wild impulse to run outside, although he knew perfectly well that only death could await him there. Death, which is like sleep, only infinitely longer....

Nancy came back from the galley whimpering. "Johnny," she said, "oh Lord, Johnny!"

"What, hon? What's wrong?"

"Johnny, I couldn't help it. Honest, I couldn't help it. I was washing the dishes and—"

"And what? What happened, Nancy?"

"I—I piled food into the disintegration unit and destroyed it. An awful lot, Johnny, almost all we have. There's enough left for a week or ten days. Enough to get us back to Sol System or Sirius, provided we leave here soon. Provided the hyper-drive is fixed. Johnny!"

He took her in his arms and held her, and he felt her heart beating wildly. "Take it easy, kid," he soothed. "You need some sleep, that's all."

"That's not all, Johnny. I don't know what made me do it. All the time, I knew what I was doing, and I think I wanted to do it. I smiled, Johnny—I actually smiled."

Johnny quieted her as best as he could. He gave her a stiff shot of brandy—really the Algol IV swamp juice which is a lot like brandy, only stronger—and he took a stiffer shot for himself. Then they turned in. As far as Johnny was concerned, it was night and time to sleep, although the half-light of the twilight world outside remained changeless.

Presently, Nancy breathed regularly, and he knew she slept. He knelt

over her and looked down at his wife's face, now peaceful in sleep. Peaceful—and he found his arms raising slowly, the fingers of both hands outstretched like claws, reaching for the whiteness of her neck. And he could feel a smile tugging at the corners of his mouth because something inside him was glad at the prospect of killing her.

With a gasp, he broke away and ran for the galley. He took down the bottle of swamp juice and poured a cup-full. This he downed like water, and he poured another one. And so he spent the next few hours, sleepless and afraid and thinking of a little old man who didn't have to breathe and who would be back....

JOHNNY must have dozed, because he next was aware of an insistent banging on the hull of the *Bliss I*. He shuddered. The old man had returned.

"Johnny!" Nancy called from inside. "Johnny, where are you?"

He called a greeting back to her and met her halfway in the control room. She looked refreshed from sleep, but she had heard the knocking too, and the fear was stark in her eyes.

"Why," she said, "you look like you haven't slept at all."

He shrugged and then gestured helplessly toward the lock when the banging came again. "Do we let him in or does he go on knocking?"

Nancy smiled wanly, and some of the old gaiety came back into her voice. "You're the boss, Johnny. Whatever you say goes."

"Hmm. That guy gives me the same sort of goose flesh that he probably gives you, but we've also got to—find out about him."

"Find out? What's there to find out?"

"I don't know, hon. I don't know. But look: I wanted to run outside into that vacuum yesterday. I really did,

and I hardly could stop myself. Neither one of us wanted to eat, although we both admitted we were hungry. Later, you went into the galley and disintegrated most of our food. And when you slept last night—"

"What, when I slept last night?"

"Nothing. Nothing at all. Forget it. But here's the point: do you realize what it all adds up to?"

"Uh-uh, Johnny, I don't think so. What?"

"I could be wrong, but I'd say we were trying to kill ourselves, and our old friend outside may just possibly know something about it."

"Trying to kill ourselves—?" Nancy paused as the knocking came again. Then she continued, "Why? If that little old man is somehow causing it, why?"

"I don't know. Sometimes a new world plays strange tricks with the metabolism, and sometimes it does the same thing with the mind. That could be it, only I don't think so. This old guy's the bird we have to watch. I sure as hell don't know what's up his sleeve, but maybe we'd better find out. I say let him in."

Nancy nodded. "I've said you're the boss. Open the lock doors and we'll play host and hostess—to a man who doesn't breathe and may be trying to kill us." There was levity in her voice, but Johnny could tell it was forced. And if she felt half as scared as he did, then she was plenty frightened, because Johnny had trouble keeping his legs steady when he reached the inner door and began pushing the levers.

AS BEFORE, the little old man came in wearing his faded gray trousers and his plastalloy shirt. "Howdy, folks," he greeted. "Got a bit lonely out there again, and I thought I'd drop by for a little chat. Winds comin' up soon, anyway, and I

thought I'd stay here for a spell."

Johnny hardly heard the words. The smell frightened him more than anything else.

"You folks must be getting lonely too," the little man was saying. "Sorta depressed, I'd say."

"Why, yes," Nancy agreed. "We certainly are."

It had come again, Johnny realized, the old man's uncanny ability to draw them out, so they wouldn't succeed in doing the same to him. Moments before, they had decided, once and for all, to find out about him; but now Nancy had begun to tell him their troubles. This would never do, and Johnny knew it—and his temper, already frayed, was at the breaking point.

"See here," he snapped, "just who are you?"

"Well now, that ain't an easy question to answer, my boy. Just a harmless old codger who dropped in for a chat—"

"Yeah, sure. A harmless old codger who dropped in out of a world which has no atmosphere."

The old man considered. This seemed to confuse him, Johnny thought. It was as if he had run upon something he did not quite understand.

"No atmosphere, you say? No atmosphere? That is interesting." It was almost a monologue: Johnny could sense the man was talking to himself. "Of course, you breathe. Let me see—hmm, oxygen's the important element. Yes, yes. Well, no matter.

"There's something mighty depressing about this world, ain't there? I mean, don't you feel listless and bored and tired of everything, so tired that it's pointless to go on? Don't you now?"

As the man spoke, Johnny felt it coming again. That feeling—and he wanted to open the lock doors again

and see what it was like to breathe in a vacuum. He got up and put his hands on both levers at once—now all he had to do was pull them down, and, with a *woosh*, all the air in the *Bliss* I would be sucked outside. It all would be over in a jiffy. So easy, and then he could rest...

But for a moment, when he looked, he had a glimpse of something other than the little old man. He didn't know what it was—the glimpse had been too quick, almost, to register on his brain. But it had been something horribly alien, and it broke the deadly train of thoughts. He pulled away from the levers, aware that he was sweating all over—and the old man looked as harmless as ever.

"Get out!" Johnny cried. "Get the hell out of here and don't come back."

"Easy, young feller. It's nerves—"

"I mean it. Get out, quick." Johnny approached their visitor menacingly, towering above him. For a moment, he fancied he saw a smile start on the old man's lips, but he must have been mistaken. It seemed to be a smile of amusement, but that was impossible, because a petulant frown creased the man's face, and he turned to go.

"Okay, okay, young feller, but you sure ain't the most sociable guy—"

Wordless, Johnny opened the lock doors and watched the little fellow leave. Incongruous as hell—a gray-haired old man in faded trousers and shirt, out among the giant rocks and long slithering shadows of a plain which for many millions of years had known neither real daylight nor real darkness.

"**A**ND THAT," said Nancy, "is that. My hero has chased the wicked old man someplace out yonder. But honest, Johnny, you looked silly threatening that tiny little man. I was afraid of him up until the time you stood over him with your fists

clenched, and then I felt sorry for him. Or maybe half of me did, because all the while I was aware of the smell and the feeling. I don't know, Johnny. D'you think he'll be back?"

"Maybe, maybe not. But your desire to protect him is interesting. And dangerous, too. Hon, that's the same as our desire to kill ourselves, only in reverse. We've got to—"

But Johnny stopped talking. Nancy had been gazing at one of the knives on the galley wall, and she took it down slowly. She turned the blade over in her hands until the light was caught and held by the magnasteel, and then she approached Johnny.

"What gives?" he demanded, and then he thought of the nighttime, and of his urge to kill her. And while he thought she had reached him and the knife flashed up. It came down fast and Johnny grabbed for his wife's arm and pushed it, but the blade caught him in his left shoulder and he felt it biting in, all the way to the bone.

"Nancy!" he cried, but then she saw the blood and she began sobbing and she buried her head against his shoulder so that the blood darkened her hair.

She cried his name once, and then again, and the knife clattered to the floor. She dressed his wound in silence, dusting on the anti-biotic powder with fingers that trembled. Then Johnny told her about the night before and how he had wanted to kill her.

"So you see," he said, "we've got to fix that hyper-drive and get off this planet."

She whimpered a little. "But what about now? What until we fix it? If we have to be afraid of each other—"

"I love you, Nancy. I love you. If I keep thinking it and saying it and thinking of nothing else, maybe that will help. Lord, how could I kill you?"

"But you tried, and I tried—and

we may try again. That's not the answer, Johnny."

"Well, we could keep away from each other as much as possible."

"That won't work, either. We might try to kill ourselves, and then there'd be no one around to prevent it. My gosh, Johnny, what a way to spend a honeymoon!" Then she laughed. "You've got to admit that Sirius III has its advantages." But when she saw the bandage on his shoulder, she stopped laughing.

Johnny opened the cabinet which housed the hyper-drive, while Nancy spread their tool-kit out before it. He took the mechanism apart with care, examining each part thoroughly, and finally he smiled grimly. "I think I have it, kid. Really simple—the drive-rod is clogged. Nothing to it—but it's a lot of dirty work, and it'll take twenty-four hours to fix, at least."

"Okay, m'lve. We'll start that twenty-four hours, as of now. Then we'll have a ship-shape *Bliss I*, and then—"

"We'll get the hell off this world," Johnny finished for her.

They worked in silence for a while, and then Nancy stood up. "I don't feel like fixing it, Johnny," she said.

He looked at her a long time, but he didn't say anything. He had felt the same way for a few minutes now. Half of him wanted to repair the damage, but the other half wanted to forget about it. The same half that didn't want to eat and that smiled when he stood above Nancy with his hands outstretched.

"It's no good, kid," he said. "That man—"

"I'm afraid, Johnny. If we don't fix the drive, we'll never get off this world. We'll starve to death after our food runs out. But it's funny—I almost don't care."

Johnny said, "Stop it!" He shook her. "We'll have to go outside and find—him."

"Find him? Out there?" Nancy shuddered. "It wouldn't work, Johnny. If he can stop us from eating and repairing the drive, if he can make us want to kill each other—"

"No, kid, you're wrong. Don't you see? He also wants us to go outside. If we go outside, we'd die, and he wants that. Think about it. Don't you feel that *all of you* wants to go outside?"

"Yes. Yes, I do. But what can we do, if we find him?"

"I don't know. But we've got to find him first. If we stay here, we die. If we go outside—"

He walked over to the supply cabinet and began to take out the two spacesuits. These new models, except for the fish-bowl helmet, were not bulky at all. Made of plastalloy, they fitted the body closely, with the thinnest layer of insulation. He gave one of them to Nancy and donned the other himself, filling the food and water containers at the bottom of the fish-bowl helmet to capacity. Then they checked their radios and found them in working order. Nancy said:

"You don't have to wear fish-bowls on Sirius III."

"Or in the Proxima System," Johnny agreed cheerfully, listening to the metallic ring of his voice. "I'll bet you never had a honeymoon like this before."

"Well, since it's my first, I wouldn't know. But if it's a sample, I can assure you it'll be my last. I guess I'm just stuck and I'll have to stay married to you for life."

At that, Johnny sobered quickly. He wondered how long "for life" would be.

THE WHITE disc of the dwarf star stood timelessly on the hori-

zon, and eerie shadows stretched away from it, incredibly long. The star looked peculiar there on the horizon—no atmosphere refracted its light, and it gleamed as clear and bright as the sun at zenith, only more intense. And white, it was virgin white—yet black as the Coal Sac were the monstrous shadows covering the plains.

Soon the *Bliss I* faded into a tiny dot which disappeared among the shadows thrown by towering pinnacles of naked rock, and then the rock reared all about them interminably. They kept the low disc of the dwarf star behind them as they went the way the little old man had gone.

More than anything, the plain reminded Johnny of Luna, except on Luna the shadows are not so long. And probably, the lack of atmosphere accounted for the similarity: both globes, bereft of a protective covering, were easy prey for the bombardment of cosmic debris which pelted them constantly. Pock-marked, twisted and torn, the surface waited for more scars. Once their path led them near the lip of a small crater and Johnny almost wanted to hurl himself down into its depths, but he drew back in time.

This he didn't mind—he usually could force the desire from his mind, and he was around to watch Nancy. But when he found his fingers toying with the fish-bowl helmet of his space-suit, he trembled. It was hard to disregard the impulse. Why not unscrew the fish-bowl? Why not unscrew it and feel the air puff out, and then feel his head puff out with it like a great, inflated balloon. Why not...?

"Stop it!" Nancy cried, and he felt her gloved hands clawing at his arms, pulling them down and away from the fish-bowl. He had come very near to taking it off, and inside his suit, he could tell he was sweating.

THHEY WALKED for a while longer, and then he saw Nancy smile briefly through the transplast of her fish-bowl. "You know," she said, "we won't exactly be able to surprise anyone."

"Why not? We don't make any noise—not with a vacuum all around us."

"True. But what about our shadows? They're fifty feet long if they're an inch, and they're sticking out like sore thumbs ahead of us. No, if you wanted to surprise our little friend, better forget about it."

"I bow to your superior wisdom, Madam," Johnny said. "And what do you suggest?"

"Hah—I can't suggest a thing. I'm just telling you, that's all. We're not going to surprise anyone."

And they didn't. A moment later, the little man popped up out of nowhere, still wearing his faded gray trousers and plastalloy shirt. He came so fast that Johnny almost jumped back. One moment he wasn't there, the next, he stood in front of them, smiling.

"Johnny—" said Nancy.

"Take it easy, kid. At least we can't get the smell, not with these suits on, and he can't hear us, of course—"

"Who can't?" the old man chortled. "Heh, heh—never be so sure of something you know nothing about."

Nancy whispered, "My gosh, Johnny, he can hear us. And his voice—we're sealed off, but we can hear it. Johnny—"

"Telepathy, probably. Some of the star creatures have it—and it sounds like voices."

"But he's a man."

Johnny waited for the little figure to make the next move, but he just stood there. And then Johnny felt his hands lifting to the fish-bowl again, and the fingers, hardly his own now,

beginning to unscrew it.

"Stop, Johnny!" Nancy screamed, and her voice pulled him back. With a shudder, he turned the screws back in again. "Think of something, Johnny, think of anything. Only—"

Suddenly Johnny started to laugh. This had become almost ludicrous, for now Nancy had begun to unscrew her helmet. Ludicrous, hell! She'd be dead in a minute.

He pulled her hands away and she began to struggle and soon Johnny was down on the rock with her, fighting. He pinned her arms behind her with one hand, and then—began to unscrew her helmet himself.

"Heh, heh!" he heard the little man's laugh, and he tore himself away, sobbing. Hands on hips, the man stood watching them, waiting expectantly. "Don't fight it," he suggested. "You'll lose out in the end, anyway. So why don't you make it easy, young feller?"

"Easy, my eye!" Johnny roared, and he grabbed the tiny figure. But he stopped. The man just looked at him and he stopped.

"Now then, young feller. Sit still. If you don't want to make it quick by unscrewing your helmet, okay. But just sit there."

JOHNNY sat. He sat and he looked at Nancy. She lay on her back, her breasts rising and falling under the plastalloy with the rapid beating of her heart. She lay there and looked, unseeing, at the black sky. And Johnny knew he loved her and didn't want her to die, but he just sat there. He sat and did nothing because a little old man who was not a man at all had commanded him to sit still....

"What a hell of a way to spend a honeymoon," Nancy whispered, trying to smile.

And then Johnny stood up, slowly. The old man told him again to sit

down, but he stood. He stood! He turned and faced the white dwarf star until his eyes burned with it and he could not see. He felt the tears streaming down his cheeks from the fire in his eyes, but he knew it distracted him from the old man and it was good.

Presently he spun about and his vision cleared, slowly. First, the black sky came back, spotted with unreal white fire now. And then he saw Nancy, sitting up and watching him with new hope in her eyes. He would not let that hope die—

It was then that he saw the man. Only now the man writhed and twisted, and he was not a man at all. The new shape was odious, unclean, and Johnny's mind rebelled against it—a nightmare image for which he had only loathing. Not a man at all, anything but a man. A wonderfully adaptive mimic, but not a man. Protective coloration carried one step further, Johnny thought briefly. On Earth, the chameleon changed color to match its background, and the walking-stick insect looked like a twig. Protective mimicry. On Rigol II, the *karnath* could be either a plant or an animal, according to the nature of its enemy, and on Altair VII, the fire-snake apparently went up in smoke in the face of danger, only to appear again later.

And here was the ultimate—a mimic which could ape its foe so perfectly that it took the form of one of its own kind, true to every convincing detail.

Johnny reached out and grasped the figure, the long column of pulpy gray matter which was hard and yet soft, gray and yet black and streaked with a dirty green, with a horrible eye in its middle, and tentacles...

"Stop!" The voice cried. "I command you, stop!" And for an instant, Johnny saw the little old man again,

but he faded almost at once. And Johnny fought with the thing. Now that he had seen through the mimicry, he knew the man no longer could control his mind with the desire for death. But Nancy—

NANCY was on him suddenly, trying to pull him away from what he fought. He could have hit her hard and put her out of the way, but he could only reach her helmet, and his gauntleted fist would shatter it and kill her. In front of him, the tentacles were at his fish-bowl now, struggling with the screws. And from behind, Nancy held his arms, tugging.

He wheeled about savagely, cursing, crying his rage. The tentacles withdrew momentarily, and he struck hard at Nancy's stomach, cursing again when she choked up with pain and began to fall. He caught her and eased her to the ground slowly, and then he turned back to the tentacled creature.

He faced—Nancy! She stood there without her spacesuit, alluringly, smiling at him, calling his name, her lips open and inviting. He sprang forward with a glad cry—and then stopped.

Mimicry! He hurled himself forward again and hooked his left fist wickedly at the second Nancy's jaw, watching the metal glove make a deep welt—and the second Nancy cried out. But he ignored her pleading and swung both fists again, beating at the face and body.

The second Nancy writhed, became distorted. And Johnny grappled with a Martian snow-bear. The bear should had weighed half a ton, but it didn't, and it should have had enough strength in one paw—it had six—to put an end to Johnny's efforts with ease. But Johnny fought it on equal terms.

And the bear became something for

which Johnny had no name—but he had seen it once, long ago, and it was horrible. He fought and then he found himself embracing a pillar of flame. Had Homer's Proteus, thousands of years ago, been something like this? And then the flame became a nameless reptile, and Johnny battled with it until his weary arms became lead weights which he refused to lift, until the reptile's hideous jaws opened near his head, until he lifted his arms again and battered at those jaws, battered at them until his vision swam and the reptile was Nancy again...

And then it was over. Sobbing, Johnny looked down on the little old man, who lay in a broken heap. His eyes were glassy, and he looked up at Johnny as blood flecked his lips and then gushed out in a torrent. "I just wanted to leave this damn fool world, young feller—" And the voice trailed off and the odious gray thing lay at Johnny's feet, dead.

THE END

WAVE PLOTTER!

By SANDY MILLER

NO A "WAVE PLOTTER" is not a new kind of subversive agent. It is a tool or gadget cleverly designed by an acoustical engineer, W. E. Krock, for making photographic pictures of sound waves as they emerge from a loudspeaker, a telephone headset or what have you. By extension it will be applied to radar and microwave work too.

Like most clever ideas, it is simplicity in itself, but despite that simplicity, it is new. No one thought of it before. All the wave plotter consists of is a small microphone, a tiny neon bulb, and a small rectifier. These three things are connected to the end of a metal rod about three or four feet long. A set of electric motors swings the arm through an appropriate arc, at the same time advancing it forward. If this movement is done in front of a loudspeaker, let's say, the neon bulb goes on and off in brighter and weaker flashes in accordance with the section of the sound wave which is cutting it. And

JOHNNY shoved the drive-unit back into its casing. "That does it," he said. "We're all set to go, hon."

"Well, we're not going anywhere until you tell me one thing: why did that—thing want to kill us?"

"Why? He wanted the *Bliss I*. He wanted to leave this world, Nancy. It's a dead planet, and he may have been incredibly old. So he wanted to leave. Along came two idiots, off the beaten star-trails in their honeymoon ship, and he had his chariot. Only he had to kill us first."

"Okay, lord and master." She bowed theatrically. "We may depart now. Only I'm going to tell our kids to forget all about a honeymoon."

Johnny flicked a switch and watched the amber light go on and then change to the blue of the hyper-space stasis. And then Nancy asked: "Where are we going?"

"Deneb," Johnny said, and ducked as she threw a book at him.

because it is moving forward as well as oscillating, a camera placed to one side, makes a beautifully clear and detailed picture of the entire section of the sound wave!

Now engineers can study exactly what a wave emerging from a radio or other sound producing device, looks like. No more theoretical guesses. Naturally there are limitations. The wave-length of the scanned wave must be fairly short and within reason, so that the arm can do a proper job of scanning.

Substituting a radio receiver for the microphone enables the wave-plotter to draw perfect pictures of high frequency waves as they emerge from antennae, wave guides, horns and so forth.

In essence it might be said that the wave plotter is almost like a television scanner. It is crude and simple of course, but it shows clearly how a wave is changed and focused by lenses and reflecting surfaces.

The Standing Anthropoid

By LESLIE PHELPS

A NUMBER OF science fiction stories have dealt with the apparently fantastic theme that lower animals like apes and gorillas can be trained into an almost human state, including the development of their brains. This sounds, on the face of it, like the sheerest imagination. But, as is so often the case in science fiction, science itself seems to have come to the conclusion that this is possible.

A biologist has come up with the theory that the thing which makes men the thinking sentient creatures they are which differentiates them from animals, is the fact that their hearts are capable of pumping blood against the force of gravity to their brains without a drop in blood pressure. In no other animals is this true. Those animals which exhibit the nearest in human intelligence such as the great apes and the chimpanzees show a progressively higher blood pressure than the lesser animals in the region of their brain. Furthermore by use of the encephalograph, a distinct correlation may be noted between thinking activity and the relationship of it to blood pressure.

This tends to indicate that Man partially evolved from the lower animals not only through the development of the human hand but also by the fact that he tended to force his head erect. This caused the heart to respond accordingly and the net result was that Man developed a "blood-pumper" which would do the job.

The scientist has gone on to suggest that if it were ethically and morally desirable, it would be possible to breed a strain of apes whose intelligence could gradually be increased and who would be able to do many of the simpler tasks men do! This would in effect, be introducing a form of slavery and consequently does not at all appear practical nor emotionally and ethically worthy of consideration. The startling implications however are amazing.

Men will use machines, because machines are soul-less automata, but when robotizing flesh and blood is involved, he shudders and moves away. This is as it should be. After all, flesh and blood is in some subtle way, far above and beyond cold metal and glittering energy...

THE SLEEPMAKER

By RAMSEY SINCLAIR

THE UBIQUITOUS techniques of electronics continually parade before us a startling series of advancements. And they never cease. No sooner has one recovered from the shock of a new invention, another, twice as startling appears. The latest one is a pistol!

Naturally, like the fashion has it, it is called a "brain".

But this time it really is one!

Contrary to popular opinion, one of the hardest jobs in the world is to be found in the operating room, not as a surgeon, but as an anaesthetist. The task of putting a person into the deep lethargy necessary to permit surgery is very difficult and requires tremendous skill, because the doctor-anaesthetist must be conscious every moment of the condition of his patient. And there is no way for him to tell exactly what that condition is. He must guess and judge and estimate—and parry, that he's right. Sometimes he isn't and the patient simply goes under.

Some medical geniuses however have taken the matter into their own hands and by appealing to the incredible practices of electronics, have come up with an automatic anaesthetist that does everything but joke with the patient as he goes into

his lethargy.

The "brain" makes use of the long known, but little appreciated fact that those subtle electric emanations, known as brain waves, vary in accordance with one's state of consciousness. Fully awake—strong waves,—partially awake, weaker wave—asleep, very weak waves. An electroencephalograph picks up the brain waves of the person to be anaesthetized, amplifies them and uses them to automatically control, through amplifiers and relays, the anaesthetizing machine. The result is that the patient is fed ether, or intravenous anaesthesia as he requires it—just enough to keep him under, not enough to put him under permanently.

The work of the anaesthetist then is confined to seeing that the machine functions properly and fatigue is no longer his enemy. Furthermore the machine senses the patient's condition long before the eye or hand can, and responds that much more rapidly.

The future of this device is assured. Are there no miracles that cannot be duplicated? Let's only hope that they don't find some way to displace the presence of some gorgeous young nurse!

"I don't care what it says!" Samson roared.
"No one on Earth could have done it then!"



The WORLD of RELUCTANT VIRGINS

By Robert Moore Williams

A weird blue light filled the caverns
of the moon. Was it the real reason no woman
from Earth could ever hope to bear children?



HE WAS the first man to set foot on the moon.

His name was John Holden. He had just arrived by rocket ship. His money had built it. So much of his money had gone into it that he was a pauper back on Earth.

He didn't care. He wasn't back on Earth. He was on the moon.

He was forty-nine years old, he had a little pot belly, arteries that were threatening to go stiff, almost no

hair, and eyes so weak he had to wear thick lenses to see at all.

He didn't care about these things. He was on the moon.

Behind him, three other men came down the steps. A woman came last, an order of precedence that had been determined by drawing lots. Back on Earth, they had drawn lots to see who was to make up the crew. Over a hundred men and several women had worked very hard building this ship.

Each had volunteered to ride it to its destination.

Holden felt someone slap him on the shoulder. "Well, we're here, Johnny." That was Noddy Warzicki speaking the first word.

"What was it Columbus said?" Sam Gosset asked. Gosset sounded as if he was trying to remember what Columbus had said, to say it all over again, but he wasn't able to remember.

"I was fourth," Fred Samson said. "The fourth man on the moon! My grandchildren will talk about that." Samson's niche in history was now secure. He sounded pleased.

"And I was fifth, damn it!" Jane Tovara didn't sound at all happy. "Fifth! I could have been at least second if I had cut a higher card. But I'm the first woman. Remember that!"

"How do you spell your name?" Warzicki said. "We want to get it right, for the history books. Hey, Johnny, where are you going?"

They had landed on the level floor of a valley. To the right, the sun was sinking behind high mountains. It threw long dark shadows across the volcanic ash which made up the moon's surface.

On the left, the slanting rays struck full against a cliff, illuminating it clearly.

Holden had already seen it. He had already rubbed the glassite helmet with a heavy glove to clear away the distortion. He had discovered that the distortion was not in the glassite but was up there on the cliff. When Warzicki called, he had started walking toward it.

He kept on walking. The voices of the others went into quick silence as they saw what he had seen. Automatically they followed him.

Ten feet away from that cliff, Holden stopped. The letters carved in the face of the cliff were head high.

WE PASSED THIS WAY

Below them were other letters:

Follow the Arrow

The arrow was there too, pointing an enigmatical finger toward the right. There was a third line, four figures which made a date.

1887

The four men and the one woman stared at them.

"No!" Warzicki's voice came explosively over the inter-com sets. "This can't be true. Goddard didn't publish his paper on the technical aspects of rocket propulsion until 1919."

"And Oberth didn't publish his treatise until 1923!" Fred Samson added, his voice full of astonished pain.

"And it wasn't until the end of the war that rocket experiments got under way in earnest in America!" Gosset gasped. Gosset sounded hurt too, as if these words on the cliff were trying to take something away from him.

John Holden said nothing. He stood looking up.

"This is a monstrous practical joke," Noddy Warzicki continued. "Somebody got a ship up here last year and carved these letters just to confuse us."

"Us?" Holden said. "Just to confuse us?"

"Well, to confuse anybody who landed here," Warzicki amended.

"I'm still the first woman," Jane Tovara said. "But you guys are not the first men. Not any more. And you were so puffed up about it. That's a laugh!" Because that was what it was, she began to laugh.

"We ought to have dropped you out of the air lock," Noddy Warzicki

said. "I'll do it too, on the way back, if you don't shut up."

The tone of his voice made her stop laughing.

THHEY STARED uneasily at the cliff. "It's got to be a joke," Warzicki said. "In 1887 the only people who knew anything about rockets were the Chinese and they used them to scare away devils."

"Maybe somebody knew then," Holden said.

"You're nuts!" Warzicki answered, appalled. "Those letters are as clear as if they were cut yesterday. There are the stone chips on the ground. No weathering. You can see for yourself—" His voice went into troubled silence.

"Where there is no weather, there will be no weathering," Holden said, gently. "It would make no difference whether the letters were cut yesterday or a century ago, they would still look the same in both cases."

"All right, I'm nuts!" Warzicki muttered.

Holden moved forward and touched the letters. Through the thick gloves, he could feel them. Yes, they were there. Two senses said they were.

"Perhaps we had better get back to the ship. This is all so new to us. We need time to think." Turning, he walked away. A stoop showed in his back now. And even under this light gravity, one-sixth that of Earth, his legs seemed to have lost their spring.

The others followed him.

Long shadows were reaching jagged edges from the opposite mountains. But they had not reached the ship, yet. Out of those shadows something came walking. It looked at them, at the ship.

They stared at it.

It moved toward the ship, sat down on the bottom step to await their coming.

"It's a man in a space suit," Holden

said. "He is waiting for us." He moved quicker now, but if there was eagerness in him, it was hidden under deep layers of fear.

If a ghost appeared, John Holden would walk straight toward it. He was that kind of man. He walked toward this ghost now. The others followed him as if they were glad, this once, to have somebody out in front of them.

The ghost did not have a radio aerial projecting about his helmet. Presumably he had no radio. His space suit was strange, it fitted him as if it had been built for somebody else and he had borrowed it. As they approached, he rose to his feet, made signs to them. Through the window in the helmet, something looked out at them, they could not tell exactly what. The plastic window was obscured.

"He wants to go into the ship," Gosset said, interpreting the signs.

"We can't let him in that ship," Warzicki said. "We don't know anything about him."

For the first time, Holden showed signs of strain. "God damn it, he could have gone into the ship if he had wanted to. This is not the time nor the place to hesitate." He moved past the gesturing figure, stood in the air lock. Here he made a sign of his own, an extended sweeping open hand that invites the guest to precede the host into the ship.

THE STRANGE figure bowed like a cavalier. He moved past Holden into the lock, waited there, looking at the strange controls. The others followed. They closed the outer door, opened the inner one. Inside the ship, they hastily took off their helmets. Oxygen was all right but the lungs needed more than that. Talk over the radio was better than no talk, but the ears and the mind needed more. The friendly always-present

fringe sounds, the noises from the distance, the honk of an automobile, somebody laughing in the next room, the rattle of an elevated train, the fall of a leaf, without these sounds the mind and the ears felt lonely, a little lost. These sounds were missing on the surface of the moon.

The strange figure had already unlocked his helmet and had swung it back. His voice rang out.

"Howdy, howdy, howdy! I'm sure glad to see you! Who are you and where'd you come from? What's it like on earth these days? When are you going back?"

It was the voice of a man hungry for news, for talk with his own kind. Holden pointed in the direction of the cliff. "There are some words and a date there—"

The man laughed. "I saw you looking at them. You wondered how they got there, I bet. Well, if you had landed in any of a dozen other places, you would have seen some more just like them. We scattered them in most of the likely places. It just happens that you hit the one nearest the old landing." He talked easily and freely, saying much or nothing. It was hard to tell which.

"There was a date—" Holden said.

"God, I'm glad to see you," the man said. "My name is Brad Stinson. What's yours?" He extended a hand. "The others will be glad to see you too. It just happens I was at the top of the slit and saw you land."

As if he did not see the hand and had not heard the words, Holden spoke again. "Is that date right?"

"Oh, I see what you mean," Brad Stinson answered. "Didn't understand you at first. Sure, the date is right."

The ship became very quiet. The five humans stared at this one human who had come walking in to see them. His skin was tanned a deep brown, it was without wrinkles, his eyes were clear. A net thrown across the United

States would catch a million like him. A net thrown a million times on the moon ought not to catch any like him. Or so they had thought.

For the first time, Holden seemed to see the outstretched hand. He took it, gave his name. "This is Mr. Wartzki, this is Mr. Samson—" He went through the introductions. Then he moved over to a chair and sat down. His legs had grown tired and his heart was acting fluttery. He would sit there and rest and let the others ask the questions.

They asked dozens of them. Stinson answered readily enough. The ship that had landed here in 1887 had been powered by a "green stuff that Thad invented." It had been built in a valley in the Great Smoky Mountains, in western North Carolina. It had carried a crew of three young men and their wives. And one other man: Thaddeus Juvenal. Respect sounded in Stinson's voice when he mentioned that name. Thaddeus Juvenal had imagined, designed, and built that ship. He had called her the *Egg Tooth*. Each baby bird has a small tooth on the top of its beak which is used for only one purpose—to break the shell of the egg. After this is accomplished, the tooth disappears. After hearing that name, John Holden wished he had thought of it for his own ship.

THERE WERE other questions. Holden hardly listened. He was busy subtracting the difference between 1887 and 1955. The answer he reached was 68. Because even genius requires time in which to operate, Thaddeus Juvenal must have been at least forty years old at blast-off time. That would make him 108 now. "No," Holden thought with real regret. "We won't meet Juvenal. He's dead. We won't meet any of the original crew. They're gone too. We'll soon be gone ourselves...." He choked off such

thinking. It got him nowhere.

"I assume you are the son of one of the original crew," he said.

"Grandson," Stinson answered.

"Ah. Did Juvenal leave any descendants? No, I guess not." He broke off hastily, remembering that there had been three couples but that the leader had been an odd man.

Stinson laughed. "Sure he did. You can meet his grandson tomorrow, if you want to."

"But I thought—"

Stinson nodded as if he understood this objection. He could also shrug it aside. "But when you've got a real genius, it isn't right for his line to die out just because he was too busy all his life to find a wife. They lent him a woman."

"I see," Holden said, embarrassed and despising himself for it. The solution seemed reasonable and natural somehow, and in the absence of personal friction and personal possessiveness, it could have been worked out. "How many of you are there now?"

"Still seven," Stinson answered. "Three granddaughters and four grandsons of the original crew. I know, it seems likely there would have been more, but it hasn't worked out that way."

"But how have you managed to survive? No air, no water, no vegetation—"

"None on the outside. But on the inside—" He hesitated and seemed to pick his words with care. "Somebody was here before us too."

"What?"

"We call him the Moon Man but we don't know much about him. He made the suit I'm wearing. He built cities underground. Thad knows more about it than I do but there's air down in those cities and water and plants. The original bunch found them soon after they landed."

"Where is this Moon Man?" Holden asked, excited. "I want to see

just what he looks like."

"Can't," Stinson said. "He's gone."

"Gone where?"

"Gone dead. He didn't last until men got here. If you want to know more, I'll talk to the others and if they're willing, I'll show you around tomorrow."

They wanted to see more. "By the way, can this ship return to earth?" Stinson asked, moving toward the air lock.

"Certainly."

"Well, see you tomorrow." Snapping his helmet into place, he stepped into the lock. It was dark outside now, except for star—and moon-shine. He moved into that darkness and out of sight.

"That was the damnedest story I ever heard," Noddy Warzicki said.

"We'll get the rest of it tomorrow," Holden spoke. There was wonder in his voice. It was a pale echo of the real wonder existing deep inside of him.

"You can go hear the rest of it if you want to," Warzicki said. "I'm not leaving this ship."

"Eh? What could harm—"

"I don't know. I just don't like the feel of things. Damnit, shut up, I told you I don't know." Warzicki went moodily toward the galley where he began to rattle pots and pans. They could hear him cursing dehydrated foods in there. Holden looked thoughtfully after him, shrugged. Tomorrow would answer all questions. Or raise new ones; he didn't know which.

THE SUN was a white-hot ball in the sky when they glimpsed Stinson returning. Another figure was with him. The two walked easily across the plain of volcanic ash, came up to the ship, and were admitted. They removed their helmets.

"I want you to meet Thaddeus Juvenal, the Third," Stinson said.

Juvenal was tall and thin, his face was open and frank, his eyes were almost without expression. He glanced curiously around the ship, a sweeping look which seemed to probe every detail. When he spoke, his voice had the courteous tones of the Old South hidden somewhere in it. "Glad to meet you folks, mighty glad to meet you. Brad tells me you have come to pay us a visit. Others are coming behind you, I reckon?"

"That's right," Holden said.

Juvenal seemed to think darkly for a moment of that prospect. "A big migration to the moon, I suppose?"

"That is coming," Holden said. He glowed a little at the thought.

"Well, we can't have it," Juvenal said.

"Why the hell can't you?" Warzicki spoke, his voice hot. "You can't turn back the clock. Nor can anybody else."

For a moment Juvenal studied the defiant Warzicki, then he shrugged and smiled. Holden got the impression that the man had reached a decision, though on what point he could not guess. Still smiling, Juvenal shook hands all around. "Brad tells me you want to see where we live," he finished. "Come along and we'll show you."

They put on their suits and helmets, including Warzicki, who went through the air lock with them, but went no farther. "I'll wait here," he said. "If anything happens, you can reach me over the walkie-talkie."

They moved off. By signs, Juvenal asked if Warzicki did not wish to go with them. By signs, Holden said no. Juvenal and Stinson conversed rapidly by hand gestures.

They reached a huge crack in the moon's surface, one of many similar cracks that astronomers have seen but have not understood. It was at least a mile deep. Steps cut into the stone led down into it.

Jane Tovara took one look and squealed in dismay. "I'm not going down there. I get the willies just looking at it."

"Who cares what happens to the fourth woman on the moon?" Warzicki said, over the radio.

"Fourth woman?" she yelled.

"That's what you are," Warzicki said, from afar. "No, by golly. Three landed here. They had three daughters and the daughters— You're the tenth woman, kid." His laugh came from the distance.

Jane Tovara went down the steep steps without further protest. Her voice was an almost inarticulate mutter over the radio. "That dirty dog, I'll cut his throat yet. The tenth woman! I'd rather not be here at all than be tenth."

The steps passed over a ledge and went down again. Juvenal stopped, pointed toward the bottom. They could just barely make out what looked like a toy space ship down there. Juvenal made signs which they did not understand.

"Probably the wreck of the *Egg Tooth*," Holden commented. "She must have landed in this slot." He thought of that first landing and of the horror the crew must have felt when they realized they were trapped.

HALF-WAY down to the bottom of the crevice, Stinson stopped. A metal door covered with hieroglyphics was in the wall. He opened it, made gestures for them to pass through. Inside was an air lock which served the same purpose as the one they had on the ship though the design was entirely different. Stinson closed the outer door. A line of blue radiance circled the walls of this place, providing illumination. He opened a valve, then opened an inner door, then took off his helmet.

They were in a tunnel that led off into some far distance. The streak of

blue light went down each wall.

"What would you all like to see?" Juvenal spoke, removing his helmet.

"Everything, I guess," Holden said. When his helmet was off, the radio was disconnected. He could no longer hear Warzicki. It did not matter, he guessed. There was too much to be seen here to worry about that lone rebel back at the ship. "Everything—"

"That's kind of a big order," Juvenal drawled. "But we'll try. You've got tomorrow, maybe a lot of tomorrows, to see this place. Personally, I've seen it so long I've got kinda sick of the sight of it."

"It's all new to us," Holden said. "New and bewildering."

Hours later it was not so new but it was even more bewildering. They had seen subterranean caverns that generations of Moon Men must have excavated, vast spaces where edible fungi grew, a machine that had once supplied air to this system. And supplied it still.

"They built their air machine to last forever," Juvenal said. "They didn't last as long as their machine." His voice was dry and tangy, a whisper lost in the vast reaches of these caverns.

"But what happened to the Moon Men?" Holden asked.

"They died," Juvenal said. "If you will come this way, you will find the quarters where they lived." He turned toward a vaulted arch that marked the entrance to another tunnel illumined with blue radiance.

"I've seen enough," Jane Tovara said. "Please, let's go back now." Her voice had a pleading note in it.

"Don't you like this place, Miss Tovara?" Juvenal said.

"I don't like it even a little bit."

"Do you know why?"

"I don't have any idea except it's gloomy and it's dead and it scares me somehow. What difference does it

make? Please, let's go back!"

Juvenal nodded as if he understood exactly what she meant. "Nor did Mary or Grace or Helen like it either," he said. "They sensed what was wrong with it, just as I suspect you sense what is wrong?"

His words were little jarring notes in the quietness.

"Who were they?" Holden asked.

"The wives of the men of the original crew," Juvenal answered. "Certainly, we will go back to your ship. Incidentally, are you certain it is in condition for an immediate return to earth?"

"Of course it is," Holden answered. He looked at Stinson. "You asked me the same question."

"Did I?" Stinson answered.

"Say, where are the others who are supposed to be here," Gosset spoke. "We haven't seen them."

"They're busy," Stinson answered. "Lots of work to be done here."

"Come, please," Juvenal said. He moved purposefully across the cavern and opened the inner door of an air lock. "Put on your helmets. We are going up."

OVER THE radio when the helmets had been replaced their voices were a babble of sound.

"John, Noddy doesn't answer. I called him and he doesn't answer." This was Jane Tovara speaking.

"John, there's something wrong here."

"They may be trying to trap us."

"John, we've got to get out of this place." Now, Jane Tovara sounded frantic. "I still can't hear Noddy."

"We're too deep here to reach Noddy with walkie-talkies," Holden said. "As to the rest, they have made no move against us."

"But we may walk right into a trap any minute. How would we know a trap before we were in it?"

"Be on the alert," Holden said, try-

ing to be calm.

The outer door opened. Outside was the knife gulch in the moon with the steps leading in both directions.

"They may try to shove us off these steps," Samson whispered, "Look, no guard rail. You could fall a mile."

"Stay close to the wall," Holden answered. "Keep your eyes open. There are four of us and only two of them."

In the lead, Juvenal was already moving upward. They followed him.

"It seems forty miles up these steps," Jane whispered.

The top was visible above them. It was closer, closer. They were there. They were safe.

Across the plain of volcanic ash, the ship was plainly visible. Figures moved around it. Now Warzicki's voice came over the radio.

"Try to hit me over the head, will you? I'll show you!"

They could see him in the lock. He was wielding a heavy wrench as if it was a club, fighting off five figures who were trying to pull him down.

"There are their pals!" Gosset whispered.

Holden turned toward Juvenal and Stinson. They had drawn apart and were staring at the ship. "Come on," Holden said. "Noddy needs help."

In this light gravity, running was no effort. Stinson and Juvenal, after an exchange of hand signals, followed them, but at a distance.

They were seen before they reached the ship. The attackers drew off and stared at them. Noddy Warzicki stood in the air lock. Like a victorious but tired gladiator, he leaned on his wrench. The sound of his heavy breathing came over the radio.

"It's about time you got here," he greeted them. His nod took in the attackers in one contemptuous gesture. "They came up here and tried to talk. Hell, we couldn't talk when all they could do was make signs which I

couldn't understand. Then they wanted to enter the ship. Not past me, they weren't. They hung around, making signs to show they were friendly. Then one tried to hit me over the head when he thought I wasn't looking. John, they want this ship." He sounded outraged and terribly angry. "Get in here, all of you, and we'll turn a jet blast on them. That'll singe them."

They reached the lock, entered. Holden looked back. Juvenal was coming across the plain of volcanic ash. His hands were held high above his head. At the gesture, Holden hesitated. "Wait. He wants to talk to us."

"To hell with him!" Noddy answered. "Let him talk to himself."

Still Holden hesitated in the lock door. The suited figure came up to the steps. With his hands high above his head in the ancient gesture of submission, he stood looking up. The others stayed far back, watching, waiting—for what? The gesture touched Holden, he did not know how. They were pleading in silence for something. What?

"Get into the ship, Johnny," Warzicki growled. "I'll start warming up that blast—"

"You will do no such thing."

"But—"

"Damnit, he's a man and he's here on the moon. And we've got to talk to him. We'll take him into the air lock. You, Noddy, go inside and get the pistol out of my drawer. You come back into the lock and watch him while I talk."

"All right," Warzicki grumbled. "But if he doesn't talk right, I promise you I'll blow a hole in him you can stick your fist through."

HOLDEN motioned to Juvenal to come forward. They entered the lock, closed the outer door. The inner door opened and the others went

through. They went fast, as if they were in a hurry. Juvenal started to follow. Holden caught his shoulder. Juvenal stopped, turned mute eyes toward him. Holden shook his head. The man did not protest.

Then Warzicki was back in the lock alone, a .45 caliber automatic in his hand. He closed the inner door, removed his helmet. Juvenal and Holden did the same. Warzicki snicked back the slide on the gun, let it slip forward. Juvenal stared at the weapon. "What is that?"

"An automatic pistol," Warzicki answered. "We want to hear your story. It better be good. Why did your pals try to steal this ship? And don't tell me you didn't plan to get everybody out of it and then grab it."

Juvenal did not answer. His eyes went to Holden almost in pleading. "You said other ships would be along," he said.

Holden held himself steady. "Yes. It is the rocket ship era on Earth."

"Why are you asking about other ships?" Warzicki demanded. "Are you going to try to steal one?"

"No. This one will be enough—I hope."

"You *hope*?" Holden echoed.

"Yes. We weren't really trying to steal your ship, we were just trying to get control of it and to make certain it returns to Earth immediately."

"What's the rush?" Noddy Warzicki said. Some of the anger was going out of his voice. Uncertainty was replacing it.

"*This* is the rush," Juvenal said. "This moon, this place everybody is trying to reach, is a floating death trap."

His words left complete silence behind them.

"Eh?" Warzicki said. "You look pretty healthy to me."

"I am. It's a different kind of death trap—a racial death trap."

"What?" Holden said.

"You saw the civilization of the Moon Men," Juvenal answered. "You asked what had happened to him. Well, apparently late in his history, he discovered a method that he thought would make him immortal."

If there had been no sound before, there was even less sound now.

"Sounds like a fairy story?" Warzicki grunted.

JUVENAL spoke tonelessly. "Hardly that. As to the method the Moon Man tried to use to make himself immortal, I don't understand it. It ties up, somehow, with the blue light that illuminates those caverns, and it ties up also with something that happens inside matter itself. They did something to matter to make it explode inside itself—"

"Radioactivity," Holden whispered. In that single word, he suddenly understood everything. And nothing.

"I never heard that word before," Juvenal answered. "But this I know, both from what I have found in the caverns themselves and from what I have managed to decipher of the Moon Man's writing he left behind. He almost made himself immortal. But not quite. He discovered how to live a long time but not how to live forever. There is indisputable evidence in those caverns that the last of the Moon Men lived for hundreds of years."

"Why did the race die out?" Warzicki breathed.

"For this reason. The method that made them live a long time also made them sterile. Babies stopped being born, there was no next generation. Somebody once said that death was nature's greatest invention. If you thwart nature, you seem to pay a price for it. In this case, the race pays the price for you. The race of the Moon Men paid that price, by perishing."

The silence was heavy.

"About two months in this place is all a human can stand. After that, he is sterile forever. Miss Tovara sensed what was wrong in the caverns, all women sense it. Something deep inside them tells them to get away from this place."

"But—" Warzicki breathed.

"There is a disease here. Or something. I call it the sterility disease. The whole moon is alive with it. Even the surface has it but it is ten times worse inside. I can't understand it, but that is the way it is." His hands came up in a helpless gesture.

"Can you take this ship back at once? About us, it does not matter. We do not want to go back. There would be nothing on earth for us now. But if other people are coming here, they must know what they are getting into. Sure, they can land but they must understand that about two months is all they can stay without becoming sterile."

HE BROKE off as a sudden metal click sounded. Warzicki had released the safety catch on the automatic.

"You are a damned liar and your own words prove it. I don't know what you want but you are a liar," Warzicki said. His face was contorted, his eyes had suddenly become bloodshot. "You are the grandson, the third generation, of the original Thaddeus Juvenal who first landed here. If two months here makes a man sterile, how could you exist?"

The question thundered back from the walls of the lock. Juvenal's face twisted into an expression that had once been a smile but now was something a little less than that. "Maybe Brad had to do some fast thinking when you showed up here. Maybe he had to tell you something he knew you would believe, not something he was afraid you wouldn't. Am I Thaddeus Juvenal, the Third, or am I Thaddeus

Juvenal himself, alive here sixty-eight years after landing?"

He swallowed as he spoke and a choked note crept into his voice. "What if the Moon Man's method of making himself almost immortal had also worked on me?" he said.

"My God!" Warzicki said. Slowly he lowered the pistol.

John Holden nodded. He did not know when he had guessed the truth but the revelation had not come as a complete surprise. Inside, he was glowing.

"If you will open the outer door, I will go back to my caverns," Juvenal said. "As to warning those who are coming, you can make what arrangements you please." He swung shut his helmet.

They opened the door for him.

His comrades waited outside.

"Wait," Holden called, forgetting he could not be heard. "Wait." He ran after them. If he could not be the first man on the moon there was still something here for him, something so big it almost took his breath away. There was something here too, for other people back on earth, when proper plans could not be made. He could imagine the migration that would be coming here, of those past the age of child bearing.

If the Moon Men had made the satellite bloom once, inside its rocky shell, other men would make it bloom again.

"Wait," a voice called in his earphones. "Wait—"

He looked back. It was Warzicki who had called. Noddy was coming out of the lock, coming running across the plain.

The two fell into step behind the little group following Thaddeus Juvenal. The volcanic ash lifted in little puffs around their feet. They walked lightly, as do old men who have suddenly discovered they have new springs in their legs.

HYDROPONIC HEAVEN

By CHARLES RECOUR

FAVORITE subject of science-fiction satirists from Aldous Huxley to a host of recent writers is the idea of the "food-pill". This precursor of the incredible "schmoo" has been sort of a dream aim of the would-be world changers. Imagine receiving all your necessary nourishment in the form of a simple little pill!

Concentrated food tablets of one sort or another have been available for a long time, but as a rule they are only useful to explorers, the military and so on. A steady diet of these things soon palls and the system rebels. In addition even if concentrated nourishment pills can be provided, it is known that the system requires bulkiness as well for proper action.

The answer to a world population which is ever increasing and whose food supply is not keeping pace with its growth, is the promising technique of hydroponics. This science of raising food in tanks, supply nutrients in chemical form and with continual artificial light is used quite widely and successfully at present. Often the products of the hydroponics gardens far exceed anything grown in natural soil.

Scientists, using the methods of hydroponics have stumbled on a fresh-water plant called the *Chlorella*, a little one-celled biological specimen which promises

to provide an endless food supply. The plant grown in conventional hydroponics tanks has sufficient bulk and is capable of being transformed into such a variety of pseudo-animal products that it may well displace many current foods. At present its growth is in the pilot plant stage, but like some weird scene out of science fiction, scientists envision huge mile square tanks where the ubiquitous food will be produced.

Carbon dioxide, water and minerals are its food. With no waste, an extremely rapid rate of reproduction and growth, and cheapness, plus the ability to be changed into a variety of types either rich in fat, or in carbo-hydrates, this ingenious food source will be heard from in the future.

The food supply of future rocket craft will necessarily be limited because of weight and space. The use of the *Chlorella*, as the basic staple for food energy, coupled with pumpkin plant leaf regeneration of air, will make the potential spaceship more like a hothouse than a machine! The biological world is just as surely in its way, helping to bring space travel to fruition, as is the physical science world.

Turn on the sunlight-lamp, Jack—I'm getting hungry!

ARTIFICIAL UNIVERSE

By JUNE LURIE

EVERY HUMAN being and every other living thing, carries in its body, from the moment of birth huge numbers of germs both friendly and offensive. Consequently one of the major problems of biologists and bacteriologists is the isolation of a single type of germ. This can easily be done in a Petri dish, but in an animal's body it is impossible. The result is that we can never say for sure that a disease or organic fault is caused by a single bacterium. There are too many interfering influences.

A major step however has recently been taken by the University of Notre Dame. It has built a completely germ-free chamber—filled with *germ-free* animals!

This startling innovation in biological technique is made possible by constructing a large metal chamber sealed and gasketed thoroughly against the contamination of the outside air. It resembles in some respects one of those huge cylindrical chambers used in the decompression of deep-sea divers. Entry to it is through an airlock. Built along side it and connecting with it is a second chamber—a half-sterile room which serves as a preparation tank.

In this second room, rats, mice, monkeys and hosts of other animals are born through Cesarean sections, operated on in

a completely sterile atmosphere, bathed in irradiant sterilizing light and transferred at once to the completely sterile room. The result is that within the first chamber there exists a new world, a spot on Earth unlike any other—it is absolutely germ free and the animals within it are perfectly uncontaminated!

To service the structure, to feed and clean the animals, technicians clad in sterile suits resembling diving suits, and thoroughly bathed in sterilizing media, enter the chamber through an airlock. They perform their duties without danger of introducing an alien germ—or for that matter, any germ.

The result of this effort is that we now have a germ-free microcosm, isolated and distinct, which enables us to study with complete confidence a single germ-type, knowing full well that we shall not have to consider the effects and consequences of any other species of germ. In a way, this sterile chamber filled with sterile, germ-free animals represents a scientists' paradise.

Undoubtedly, as the success of this installation is shown, other organizations will develop similar chambers. Under these conditions we shall learn a great deal more about the relation between life and its perpetual parasite, bacterium!



HE CAME down the ramp from the giant space ship looking correct and respectable as ever, a dispatch case under one arm and his lean brown face politely ex-

pressionless.

He wore tweeds, heavy brogues, and a walking stick, and his stiff graying mustache was as well-trimmed as ever, and his eyes as glacial as always as

BROTHERS UNDER the SKIN

By Gerald Vance

If you wanted to hide from a man, the wild country of Mars was just the place — but coming out alive was another matter . . .



The ray from the lantern showed a great two-headed beast crashing toward him . . .

he glanced over the crowds that had collected at the foot of the ramp.

He was my boss, Sir Robert Andersen, British Geologist, Gentleman, and Sportsman.

I edged through the crowd and called hello to him.

"Ah, Archer," he said, giving me his version of a broad smile. He did that by drawing his lips back about an

eighth of an inch and showing a suggestion of straight white teeth.

"Welcome home," I said. "Pleasant trip?"

"Oh, quite. Earth doesn't change much, I must say. Is Laura here?"

That was his wife. Laura. She wasn't a Geologist, or a Gentleman, but she could be sporting.

"No, sir. She decided not to come in. The heat bothers her, you know."

"Quite.. I'm glad she was sensible about it. Now let's finish up this customs business..."

I helped him through customs, then transported him to the airfield where I'd left our cabin plane. We took off and headed for the interior, the green swampy interior of Mars, where our camp was situated.

The trip took about four hours. Sir Robert sat beside me, his cane between his knees, staring impassively down at the green jungle-growth that grew wilder and more primitive as we winged deeper into the heart of the planet. I handled the controls and matched his silence.

Finally he said: "Work been going on all right?"

"Fine, sir," I said.

The work was classifying and analyzing various samples of Martian soil. Sir Robert had the idea that the planet could be made productive by improving its topsoil, and to that end had taken a party of thirty-five men into the interior. Also his wife and about a hundred Martians. And myself, his guide.

"Men getting restless, or anything like that?" he said, later.

"I haven't noticed it yet."

"Those rumors still floating about?"

"Oh, yes. But nothing's happened."

He meant the rumors about an insurrection of the Martian people. They had been drifting about for months now. The Martians were restless, nervous.

No one knew quite why they were starting to act up, except for some wild stories from the heart of the planet's jungles, stories that only a child would take seriously. But then the Martians could be pretty childish at times. Despite their scientific development in the past few hundred years, there were great masses of the population that still secretly believed in the old bloody religion, with its devil-gods, fantastic monsters, and incredible apparitions.

"There was a story floating around last week that two Martians had been carried off by an animal about two hundred feet long and fifty feet high," I told Sir Robert.

HE SMILED thinly. "There is the possibility that the size of the creature was slightly exaggerated," he said, in his dry fashion.

We went another hundred miles or so in silence. Then he coughed and said, "You say my wife's been bothered by the heat. Nothing serious, was it?"

"Oh, no. I think she was more tired than anything else."

I felt like laughing at that line. I knew better than anybody else what had tired her out.

Sir Robert glanced at his watch. "We should be in for dinner at this rate."

That didn't call for an answer.

He glanced at me: "Would you care to dine with us tonight?"

"No, I think not. Thanks though. I've some work that's been piling up, and I want to get at it."

"Just as you say."

"I didn't want to be there at his home-coming. Not that I'm particularly emotional or jealous, but something about Laura had got to me, but hard. I wouldn't enjoy watching them together, even though Sir Robert was not the demonstrable type. He

wouldn't sweep her up in his arms, or hold hands with her during dinner, but even his rather embarrassed kiss at her cheek was more than I wanted to see.

We landed two hours later, as darkness was creeping from the North, covering the rich green foliage of Mars with immense floating shadows. The landing strip was just beyond the encampment, and we could see the rows of tents where the Martians were quartered, and the neat bungalows where the rest of us lived. Standing off by itself was a larger house, with a terrace, that served as Sir Robert's office and home. Laura would be there now, I knew, moving through the early darkness, lighting candles perhaps, or making some last arrangements about dinner. She'd be wearing sharkskin slacks, and thonged sandals on her bare feet, and her hair would be darkly sleek and shining after her bath.

The weather as always was oppressive. Heat was retained in the thick hollow vines, in the soft spongy earth; and now it struck at us as we walked through the pathway to the camp. There was a hint of rain in the close air, and a breeze was moving slowly, unwillingly through the trees, the trees that closed over our heads hundreds of feet above us and shut out the sun and sky during the days, and the stars at night.

I left Sir Robert at my bungalow. He thanked me for bringing him in, and then hurried on toward Laura, toward the big house where lights were now glowing on the first floor.

I watched him striding down the hard-packed street, a tall straight-backed man, a curious man, who wore tweeds and brogues back to the jungle, because that had been the correct to wear leaving Earth. Other men would have taken off their jackets, stripped off their ties, and mopped their

sweating brows, but not Sir Robert; he did the correct thing at all times. He was quite a boy.

I went into my bungalow and lit a lamp. My Martian houseboy came trotting out from the small kitchen. His name was Okkan. He was short, even for a Martian about four feet high, and his huge head was supported precariously on a reed-like neck. He looked like a hydrocephalic dwarf.

"Eat now?" he inquired.

"No, I'll fix something later. Bring me some whisky and soda."

He did as he was told, then stood awaiting instructions. "That's all," I said. He was at the door, when I called him back. I stretched out in a chair and looked at him for a few seconds.

"What do you think of the *Orando*?" I asked him.

That word did double-duty in the Martian tongue. It was the name of the God, their bloody insane God, but it also signified his return to the land and his vengeance.

Orando was upon the Martians now, according to the stories one heard.

Okkan flapped his awkward hands clumsily against his shanks. "*Orando* now," he muttered.

"That's all," I said. "See you tomorrow."

He went out and I made myself a drink. This *Orando* business had the makings of first-class trouble, I knew. *Orando* was a deep-seated instinctive thing with the Martians; and like all religious superstitions it was frequently used by people who were not religious at all, but who had some reason to want uprisings and revolt.

I drank two more drinks, and then slipped off my shirt and splashed water over my arms and chest and face. After that I went into my bedroom and stretched out on the cot. Through the screened window, and

beyond a break in the trees, I saw one star winking at me solemnly.

FOR A WHILE I lay there feeling like hell, thinking about Sir Robert and Laura. He had been gone only three weeks, but that had been long enough for me to get Laura in my blood. I had no feeling of remorse or guilt, no shame at having betrayed Sir Robert. My feeling for Laura obliterated anything like that. I wanted her and I had to have her.

But it was all over now...

I started to think how it had started, almost against my will, for there was nothing to be gained by dredging up painful memories; yet my thoughts went backwards inevitably...

Sir Robert had left for Earth, to be gone three weeks. I had some business at his office and while I was there, the door opened and Laura came in, a cigarette in one hand, a drink in the other.

I had noticed her before, of course. So had every man in camp. She was a tall girl, with skin like the petal of a flower, and dark lustrous hair that she brushed down long and straight to her fine square shoulders.

Now she was wearing brief shorts, a white silk jersey, and sandals with thongs that laced up her ankles.

"Oh, hello, Archer," she said casually. "Am I disturbing you?"

"Not at all. I won't be a moment here."

"Take your time." She sat down in a low chair and crossed her legs, which were as good as any I've ever seen: long, slender, beautifully shaped and tanned the color of well-creamed coffee.

A little later: "Would you like a drink?"

I said, I thought not.

She just smiled.

Finally she wandered from the office to the living room and turned on

some music. I was ready to leave when she called to me.

"Yes?" I said.

"Oh, come in here for Heaven's sake," she said, laughing a little.

I went into the living room. She was lying on a couch, on her side, with her drink on the floor in easy reach.

"What're you afraid of?" she said, eyes mocking me good-humoredly. "I won't bite, honest."

"I'd like that in writing," I said, drily. "What did you want?"

"You," she said, smiling. "I want to talk to you. How about having that drink?"

"Okay, my arm can only be twisted so far." I made a drink, a strong one, and sat down facing her.

"I like your looks," she said. "I like men with very black hair and angry eyes."

"Angry?"

"Oh yes. You always look as if you're ready to strangle someone."

"You're observing, aren't you?" I said.

"So are you, I think," she said, grinning calmly at me. "You've been staring at my legs for the past sixty seconds."

I put my drink down. My hands were hot and my heart was pounding very hard. This talk was taking us toward something I didn't want to happen; and taking us at a mile a minute clip.

"Let's stop being cute," I said. "What about your husband? Don't you give a damn about him?"

"He's a fool. And you're starting to sound like one. Don't turn into a moralist, please. I couldn't bear that."

"Okay, we'll stop moralizing. Let's be practical. How long do you think we could get away with it?"

"Shut up and come here," she said, laughing deep in her throat. "Who the hell wants to be practical?"

That had been the start. The start of a beautiful friendship. A three-week idyll. We hadn't fooled anybody, of course. The men in camp caught on, and cursed themselves for being too slow about making a pitch for her. I didn't give a damn what they thought, what anyone thought. She was all I could give a damn about. We went swimming together, had supper together at her place or mine, and spent long violent nights together making the kind of love they don't write about in story-books.

Then Sir Robert came home! Finis! Exit Archer, enter Sir Robert.

I GOT UP from a sweat-stained cot and ran both hands distractedly through my hair. What the hell happened now? I had told Laura we were through, that it was over and done with when her husband came home, but I had been lying. We weren't through yet. Not by a hell of a ways!

I made another drink in the living room and tried to read for a while, and then I tried to do some work, adding up supply stocks and the like, and after that I went back to my bedroom and lay down with my hands clenched tightly at my side.

That was the way I was lying an hour later when I heard the tiny scratching on the front door screen. I hurried through the living room and opened the door. Laura stood there, her white face framed by the darkness.

"Hello, there," she murmured. "Got a drink for a poor waif?"

"Laura, you're crazy to come here."

"You didn't answer my question," she said coolly.

"For God's sake, come on in," I said.

I turned the lamp low in the living room and we sat in the semi-darkness with drinks in our hand. She leaned against me and rubbed her cheek on

my arm with a slow caress.

"I can't stand it away from you."

"Develop will power," I said roughly. "Our little fling is over."

"Was that what it was to you? A little fling?"

"God no!"

"What are we going to do?"

"Nothing," I said, snapping the word out harshly. "If we keep this up your husband will get wise. He probably will anyway. Do you want that?"

"I want you," she said.

"Oh, Laura," I said, and turned and took her in my arms.

"We could run away, Arch. I'm going crazy here. The heat and the insects and the monotony are too much for me. You don't blame me for that, do you?"

"No." I knew how she felt. It was my job, but still I was sick of this trip. We had been out four months now, and that's stretching the limit of human endurance. Most of the other men felt the same way; but it was Sir Robert's decision to make, and he was for staying indefinitely, it seemed.

"Couldn't we run away?" she said again.

"Let me think about it." I heard the words, all right; but they seemed to be coming from someone else. If I ran out on an expedition, I'd be through forever as a guide. And guiding parties through swamps and jungles of Mars was about all I knew. "Let me think about it," I repeated.

"All right," she whispered.

Later we went to my bedroom. It was crazy and foolish, but so were we. Laura left an hour or so later, and she was smiling when she kissed me goodby.

THE NEXT morning Sir Robert sent word over that he wanted to see me; and I found him in his office.

wearing crisp khakis, freshly shaven, and looking as if he'd never been away.

"I want to ask you a rather strange question," he said. "Do you notice anything funny about me, Archer?"

He was serious. He sat straight in his chair, unsmiling, tanned, and expressionless.

"No, of course not," I said.

"Good. I've had the odd impression this morning that my appearance was somehow comical. I'm relieved that you notice nothing unusual." This last was said drily, in his oblique attack at humor.

"What gave you that idea?" I asked.

"Melville, first," he said. Melville was the leader of the Earthmen, in charge of the various digging units, and so forth. "I gave him some orders this morning, quite usual ones, it so happened, but he stared at me with a silly grin on his face until I was obliged to speak sharply to him. Then the same thing happened with Oroon." Oroon was the leader of the Martians in camp, a suave clever fellow whom I vaguely distrusted.

"What happened with Oroon?" I asked.

"Well, the same silly thing. I told him what I wanted done, and the fellow stood grinning at me for a few seconds, as if there were something ridiculous about me. I'm relieved to hear you say there isn't."

I knew why the men were smiling at Sir Robert, of course. They knew about me and his wife, and the unsuspecting husband is always a comic figure.

"I'll speak to them if you like," I said.

"No, I wouldn't do that. But I must say things seem a little slack about the camp." That was a result of Laura and me too, I knew. If the second-in-command seduces the lead-

er's wife, then the leader's orders are treated with the same disrespect that the leader himself is treated. Sir Robert had become a laughing stock in his three weeks absence; and as yet he didn't know why.

"No, we won't say anything about it," he continued. "Perhaps it's my imagination. One other thing: the talk about the *Orando* has flared up quite a bit since I left. Do what you can to calm the Martians' fears, and get things running a bit more briskly. I want the crews out by six in the morning, and there's no excuse for the men wearing filthy clothes. They've got out of the practice of washing them at night, and I think they should be set right on that. Cleanliness is a habit, you know, Archer."

"Righto," I said. "Anything else?"

"No, that will be all."

Laura came in while I was leaving. She smiled at me, then kissed Sir Robert on the cheek.

"Ah, my dear," he said. "Didn't you sleep well? I heard you get up and leave the house. Was it a touch of insommia?"

"Something like that," she said, unperturbed. "It was too hot to sleep so I took a walk."

"I'd rather you'd call me after this, my dear, if you feel like strolling. This is hardly London or New York, you know."

"All right," she smiled.

I couldn't keep my eyes off her this morning. She was wearing white slacks and a yellow shirt and her hair was shining like deep water in moonlight. She was better at deception than I. She glanced at me once, casually, said, "Oh, hello Archer," and then wandered back into the living room.

To get my mind off her I looked up Oroon. I found him down in the Martians' quarters sitting at his desk. He stood up when I entered the tent, his out-sized head bobbing deferential-

ly toward me as I approached.

"Sir Robert wants your men to snap it up considerably," I said. "See to it, will you?"

"Of course," he said.

Oroon was paler than most Martians, his skin being a shell-pink, and despite his grotesque appearance according to Earth standards, he nevertheless had an air of intelligence about him. His saucer-like eyes gleamed occasionally with humor, but I had always had the feeling that the joke was on me.

"What do you think about this *Orando* business?" I asked him.

He shrugged his sloping shoulders in an Earthman's gesture of bewilderment. "It is very strange," he said.

"You don't believe in it, do you?" I asked.

"It is hard to say what one believes in at times," he said, which enlightened me all to hell.

"Let's not kid each other, Oroon. You were educated on Earth, and you're a sharp lad."

"That is not necessarily a matter of cause and effect," he said, politely.

"Touche," I said. I almost grinned. "But what do you really think about this *Orando*?"

"The stories are wild and incredible; and the people of Mars are fearful. Those are the facts. How one interprets them is another matter. I, for instance, draw no conclusions. I prefer to wait and see."

"You're a hotbed of information, all right," I said, and left him nodding courteously.

AFTER THAT I went to Melville's bungalow, and found him enjoying a late breakfast. He waved to me and nodded at a chair opposite him.

"Sit down, have some coffee," he said, speaking around a mouthful of biscuit and eggs.

I sat down, but declined the coffee.

"It's nine o'clock," I said. "Aren't you overdoing your wallow in luxury's lap, somewhat?"

"Oh, hell, what's the use of tramping around in the swamp fourteen hours a day?" he said, peering at me as he reached for more omelet.

"The point is you get paid for it," I said. "You're using Sir Robert's money. He wants you to use your energy. It's what they call the law of barter."

Melville leaned back in his chair and regarded me with a thoughtful smile. He was a big man, padded with muscled flesh, and with fair skin and hair.

"You're using more than Sir Robert's money," he said. "What does he get from you in exchange."

"Are you making it your business?"

He met my eyes for a moment; then he shrugged and began eating. "No, of course not, Arch. That's your affair."

"Remember that. And remember to get your big tail out with your crews tomorrow morning."

He didn't like that. He put his fork down and stared at me again; but he obviously realized that I was merely begging for an excuse to let him have it, so he shrugged again and salvaged his self-respect by attempting to pass off my comment as a joke.

"I sure will, Arch," he grinned. "I'll roll out at the crack of dawn, maybe sooner. Now how about that coffee?"

I had some coffee. And a bit later, he said, "My men are getting fed up with this job, you know. Okay, I'm under contract, to supply the men, but I can't keep them working at pistol-point."

"It's not *Orando*, is it?"

"Oh, hell no! But they're bored. They don't have much fun here, and they aren't cheerful about staying on indefinitely."

"Well, who is? But it's the job."

I left on that note, feeling like a rank hypocrite. I was toying with the idea of pulling out with Laura, yet I made speeches to Melville! I was turning into a character.

That night I wandered out to the air-strip and looked over the cabin plane. The Martian on duty trotted after me respectfully, waiting to be of help; but after making sure that the plane was in good shape I returned to my bungalow.

The night was dark and close, and the giant trees bent and creaked in an unfamiliar wind. There was storm weather brewing, and storms in the jungles of Mars are terrific.

I turned in early, but couldn't sleep. I lay there worrying about Laura and what was going to happen. I felt like a heel for turning against Sir Robert, but something about Laura, something in myself, wouldn't let me stop now.

Again, as last night, there was a scratching at the door. It was Laura. I pulled her inside roughly, half-angry with her, but deep in my heart glad she had come.

"Don't tell me I was a fool," she said.

"Okay, even though you are, I won't say so."

"That's better. Get me a drink."

It had started to rain and her thick hair was damp, and there were drops of rain on her cheeks. She threw off her cloak, and sat down cross-legged before the small fire I'd put in the grate. The storm weather had brought a wind with it, and the room was cold and damp. Laura rolled up the damp cuffs of her slacks and removed her sandals.

"This should prove something to you," she said, leaning back and resting her weight on her elbows.

"Such as?"

"Through wind and storm I come to you," she said, lightly.

I sat beside her and took her in my

arms. After a while, she said, "Take me away, Arch. Now, tonight."

"You're crazy," I said.

"No, I'm not. But I will be if I have to spend any more time here." She lit a cigarette and threw the match irritably into the fire. "I can't stand Robert any longer. He's so damn correct and superior. I'd like to shake him up for once in his life."

"It's a big step," I said. "When and if I run off with you I'm through in Mars."

"Oh that," she said.

"It's my job, it's what I do for a living."

"You could do a thousand things on Earth, and you know it. And there'd be fun there, Arch. Music and food and delightful places to live. Take me back there, please."

"I just don't know," I said.

"Oh, please."

I frowned at the tip of my cigarette. Laura caught my arm suddenly. "Let's don't talk about it anymore. I didn't come here to make you gloomy....

ATER I sat in a chair beside the bed smoking and thinking. Laura lay asleep, her face framed in the black mass of her hair, her breasts rising and falling evenly. Starlight caressed the glowing lines of her body, molded her flat stomach and slender tapering legs.

I glanced at my watch, then touched her shoulder gently.

"You'd better go," I said, when she awoke and smiled at me.

"There's no hurry. I gave Robert a sleeping pill."

I had to grin. "You're smart."

She came up on one elbow, and laughed deep in her throat. "I know what I want, Arch. Most people don't. That's why they have so much trouble. When will we leave?"

"I'll make plans tomorrow."

"Fine."

"You're not surprised?"

She laughed again. "Of course not. Hand me my things, will you?"

The storm passed over that night, and in the morning the skies were relatively clear; but the heat was back, clammy, oppressive, draining.

After the digging crews had left for the areas marked out by Sir Robert, I wandered out to the airstrip, where I got a nasty surprise. Someone had been at work on the plane during the night. The control panel was smashed to pieces; and I knew there weren't enough spare parts to service it.

That was going to make leaving difficult, I thought. Also, I was worried about who wanted to keep us here and why. Of course it might not have been planned to keep Laura and I here, that could have been coincidental. Someone might have wanted to prevent Sir Robert from leaving.

I had made up my mind to leave, though, and nothing was going to stop me. From the airstrip I walked back to the Martian section where the beasts of burden were stabled. There were forty Lipars there, the sturdy Martian animal that was one of their few species that had been susceptible to domestication. The Lipars were cow-like, stupid, but immensely strong; and I told the guide there to have four of them ready that night after dark. He nodded in agreement and I returned to my bungalow for lunch.

I tried deliberately to keep from thinking about what I was going to do. Sir Robert had trusted me, had treated me fairly, and I didn't like paying him back this way. But I was helpless to do otherwise.

After lunch I walked down the main street of our encampment to Sir Robert's house. He was in his office, checking over some lab reports.

"I've talked to Melville and Oroon,"

I said. "Things should be improved tomorrow."

"Oh? Oh, yes! Yes, indeed."

"One other thing. Someone smashed hell out of the plane last night."

He looked up then, his face and eyes sharp. "You have any idea who'd do a thing like that?"

"Not a one."

"Is there a guard there during the night?"

"Yes, but he stays in the office and sleeps there. He wouldn't have heard anything."

"I don't like this at all, Archer," he said, standing, and rubbing a hand across his jaw. "Send that guard to see me after dinner tonight, will you?"

"Right."

I had been watching through the doorway that led into the living room, and now I saw Laura saunter in from outside, still wearing a sun helmet and dark glasses. She recognized me and waved. Sir Robert had his back to me so I pointed outside, hoping she'd get the idea I wanted to talk with her. She nodded and disappeared.

"I'll be running along then," I said.

"Very well, Archer."

I went outside and turned the corner of the house and there on the terrace was Laura. She smiled and said hello.

"I'm going to the company store," she said. "May I walk along with you?"

"Why certainly."

WE WALKED about fifty yards before I told her what had happened to the plane. Then I said, "I've arranged to clear out anyway. We're four days from the nearest city and spaceport. It won't be easy, but it's our only chance now."

"All right," she said, smiling casually at a man who passed. "Anything is better than staying here."

"Right. I want you to work your

little sleeping pill trick again tonight. We don't want to be caught before we get started."

She nodded at me, smiling, and then turned into the entrance of the company store.

I called after her, "Ten o'clock will be about right."

She turned and waved. "All right, Archer."

I went on to my bungalow. The rest of the afternoon I spent getting supplies together. I packed a kit of drugs and vitamins, and a few cans of food, and wrapped the lot in a raincoat with a few items of extra clothing. Again, I refused to let myself think about what I was doing. Instead I thought about the past: the kid of nineteen who came to Mars for adventure, who'd stayed on as a guide, growing up in the jungles of the planet. That was me, the kid who'd made a reputation for himself by bringing in a wounded and delirious traveller who had better than half a million in jewels on him, and who'd refused any reward for doing what he insisted was only his duty. They'd said of me, "What's right with Archer is right with anyone". That was me, all right. Well they wouldn't say it anymore, I thought bitterly; and to hell with 'em, I thought in the next instant.

Night rolled around all too fast. I had dinner, and a couple of drinks, and realized with some annoyance that my nerves were acting up. I felt jumpy and tense, as if something inside me was wound too tightly.

I turned off the lights in my bungalow and sat down to wait for Laura. What if she didn't come? That thought flashed into my mind and I got up and made another drink. Oddly, I almost wished she wouldn't come. I frowned and sipped my drink, wondering if my feeling for Laura was deep and strong and certain—or

was I just being a sucker because she was a woman and I hadn't seen one in four months?

The scratching at the door ended that thinking. I came out of the chair fast and let her in. She was grinning and her cheeks were flushed with excitement. Her arms were about me tightly. "Oh, let's get started," she said in a savagely happy voice. "Let's don't waste any more time."

"Take it easy, baby," I said, laughing at her eagerness. I had no more doubts then; I knew I had to have her, that she was worth everything I was going to do to myself and to Sir Robert.

Laura was wearing boots, I was glad to notice, and cord slacks, and she had a bundle similar to mine, which she told me contained extra clothing, cigarettes, and liquor.

"Perfect. How about him?"

"He's perfect too," she said. "He'll sleep until tomorrow night."

"You didn't overdo it, I hope."

"No, I don't think so." She smiled and patted my cheek. "Not that it would matter too much though. Let's go."

WE STEPPED onto my small porch and went down three steps to the street. The night was a black one, and the camp was still. Holding Laura's hand, I set off for the Martian quarter. We smelled the stables long before they loomed ahead of us in the blackness.

"I don't look forward to four days with them," Laura said.

"Lipars aren't nice to smell, but they'll take us where we want to go."

The guard came up to me and flashed a tiny light in my face.

"Put that out, you fool!" I snapped.

"Sorry, but—"

"Where are the Lipars?"

"Come after me, please."

"You picked good ones, strong

ones. And food bags?"

"Yes, all good ones."

We followed his thin body to the rear of the stables, where four Lipars were tethered. Lipars look a good deal like the Earthian camel, except that they have three humps on their backs, and are quite a bit larger.

I assisted Laura to mount the lead animal, and looped the reins of the second to a catch at the rear of her saddle. I was ready to climb up my own mount when I felt rather than saw a group of figures emerge from the darkness.

"It's me, Melville," a voice said.

I stepped away from the bulk of the Lipar, wondering what he wanted, and whether or not I could reach the atom pistol at my waist.

"We're joining you, Archer," Melville said.

"You weren't invited."

"We're not standing on formality," he said. "We know about the plane, and we figure you're the best bet to guide us out of this miserable country. So we're going along, Arch. We won't interfere with your private plans, at all. We just want to use you as a guide."

I thought hard for a moment. I could tell them to go to hell, and risk a fight. Or I could call off my own trip, and let them make the next move. But I was really in the middle. There was nothing to prevent them from following me, regardless of what I said; and it might be safer to go in a group.

"How many are you?"

"An even thirty."

"You're all walking out on Sir Robert?"

"Along with you," Melville said, drily.

I got the point. "Okay," I said. "I'll wait another half hour for you to get ready."

"That's just fine," Melville said.

"Get moving, men. You heard him."

I mounted my Lipar and moved him up alongside Laura.

"This is crazy," she said, heatedly.

I shrugged. "What else could I do?"

"Oh, I don't know." Her voice was impatient.

This wasn't turning out quite as I'd expected, I thought gloomily, as I listened to Melville's men herding the Lipars about in the warm darkness. There was going to be trouble ahead, and I had only counted on trouble from behind.

WE RODE straight through the night, and made about thirty miles by dawn.

The weather was cooler and the hint of storm was still in the air. The tops of giant trees were bending ominously in the wind that had sprung up, beneath the trees, in the semi-vacuum they created, the air was sluggish, moist, and oppressive.

We watered our mouths, had a quick breakfast, and then pushed on for the remainder of the day. That night we camped near a brackish stream. Melville's men were cheerful. They pitched in to get fires going, and sang as they worked. I erected a lean-to for Laura and she went to bed immediately, tired after almost twenty-four hours on the march.

I smoked for a while by the fire, computing the remaining distance to the city we were heading toward. If we kept our present pace we should reach there in two more days. I thought about Sir Robert then, and it wasn't a pleasant thought. He'd have awakened by now, and found himself stuck with a crowd of Martians, with the plane shot, and no way to get out except by hitting the trail as we had done. I wondered guiltily if Sir Robert could keep the Martians in check, get any work out of them, and prevent them from melting away into

the jungle. They were in the mood for that, of course, with the threat of the *Orando* in the air.

I tried to rationalize my feeling of guilt. After all, Melville and his men had planned to desert anyway; my leaving just happened to coincide with theirs. What good would it have done for me to stick with Sir Robert, when Melville was preparing to clear out?

I couldn't sell myself that alibi, however. I'd have done Sir Robert a lot of good. I could handle the Martians and guide him out of the jungle. It's hard for a man, I reflected, to turn his back on the codes of his life. Once you decide how you're going to act toward your fellow man, and what words like honor and decency mean to you, it's almost a physical impossibility to behave in an opposite manner. Yet, I had done it, I thought. I glanced over where Laura was sleeping. Yes, I'd done it, all right, and I'd have done it again, I knew.

The men turned in for the night, rolling themselves up in their rain-coats and forming a rough circle about the fire with their bodies.

I sat up for another hour or so, and then, as I was preparing to turn in myself, I heard a shrill bleating from the area where the Lipars were tethered.

I got to my feet quickly. Melville obviously hadn't been sleeping for he rolled over and sat up.

"What was that?"

We looked at each other over the flickering light from the fire. "Let's take a look," I said. "Might be some animal bothering them."

I checked my pistol, and got a strong beacon light from a pack, and then the two of us left camp quietly. No one else had awakened. We trotted across the spongy damp ground until we reached the clearing where the Lipars were milling about in terror.

I snapped on my light and swung

its beam around the clearing but saw nothing. Then I heard a crashing rending noise beyond the clearing. Glancing up I saw the topmost branches of mighty trees shaking and fluttering.

Melville drew his gun. "What in the name of God is it?" he muttered nervously.

We stood stock-still, guns drawn, watching the opposite side of the clearing. The Lipars were bleating in terror now, their great bodies crashing together in the darkness, their feet drumming the ground in panic.

Suddenly a tree-trunk split with a noise like thunder; and the tree crashed slowly down across the clearing. I flashed my light into the great black hole its disappearance made, and got a confused impression of something moving toward us—something that looked like a giant taloned paw.

I swung the light upward and at the same instant Melville screamed horribly.

MY LIGHT revealed an immense snarling head, the head of something that looked like a cat, but a head at least ten feet broad, and split by rows of teeth that gleamed palely in the light. Then, as I swung the light slightly, I saw that there were two heads glaring down into the clearing, two mighty heads attached to the same neck. The heads of the beast towered at least fifty feet above us, and beyond that I could see a great furred shoulder in which muscles like cables twisted smoothly.

Melville turned and ran; but a creeping vine caught his foot and he plunged to the ground. I backed away slowly. The eyes in each twisting head flickered over the clearing, and the creature's fetid breath swept over me like warm wind blowing over

a decaying swamp.

The beast thrust its shoulders into the clearing, and trees splintered and broke under the weight of its body; and then it lunged at the furiously rearing Lipars. The double jaws opened horribly, and a Lipar was caught in the mouth of each head. The beast raised itself in the air, shaking the Lipars as a cat would a mouse, and then, with a mighty bound, it cleared the open space and crashed away through the trees.

I dragged Melville to his feet. He was white and shaken.

"What the hell was that?" he gasped.

I could only shake my head wordlessly. "Let's head for camp," I said. "That's the way it went."

We ran back the way we had come. Every man in camp was awake now. They were huddled together in a noisy frightened group. We learned then that the beast had bounded through the camp, and that two men had been crushed to death under its ponderous paws.

I went to Laura's tent. She was sitting up, white-faced and trembling.

"What's happening?" she cried.

"I don't know. Get dressed. We're hitting the trail."

"But that's crazy."

"Listen, baby. The thing that came through here might come back. And I don't want a return match with it, if you get what I mean. Now get dressed."

She looked at me strangely, and I guess she didn't like my tone.

"I'm sorry for barking," I said. "But this is serious. Please hurry, Laura."

I went back to the center of the camp, where Melville and his men were still talking excitedly.

"We're moving," I said. "I am, at least. You men can do anything you like, but my advice is to clear out of

this area while you can."

"What good will that do?" one of the men said. "That damn thing can catch us in a minute if it wants to."

"I'm not going to try to be logical," I said, glancing around at the circle of tense faces. "According to the rules of logic that thing probably doesn't even exist. But I saw it. And I want to get moving. You can come or stay."

"It's *Orando*," one of the men muttered.

"Let's not go native," I said, disgustedly. "Melville and I got a good look at this thing. It wasn't a God on the rampage. It was flesh and blood, and it was hungry. And I don't want to be around when it's next meal time comes up."

We had a tough job getting started. The Lipars were almost unmanageable. We worked two hours calming them to the point where they could be mounted. Then we broke camp and headed on our way.

We covered about twenty miles by dawn. Everyone needed a rest by then so we stopped and prepared food. The first signs of daylight improved our spirits. It seemed easier to talk about the giant cat as the darkness faded.

Melville took me aside after we'd eaten. "This ties in with the stories the Martians have been telling lately," he said. "Maybe that explains the *Orando* talk."

"Possibly," I said.

I HAD BEEN trying to conceive of some logical explanation for the beast, but without much success. In my years on Mars I had seen most of its fauna, or thought I had, at any rate, but nothing in my experience could account for the mammoth cat. Still, it might be some monstrous atavism, the last of its species, living out its lifetime in the depths of the jungle.

Possibly...

My thinking didn't get me far. We rested till noon and then set off again, although this time there was some complaining from the men. They apparently had forgotten the giant cat. We forced our way through another twenty or twenty five miles by the time it started to get dark. I pitched Laura's tent, and then began preparing a fire. One of the men had drifted back along the trail looking for wood; but when he came trotting into camp his arms were empty. But he had news.

"There's a party of men coming this way," he said, as we gathered around him. "I heard them clearly."

"How many would you guess?" I asked.

"Fifty or sixty anyway."

"Let's not assume they're friendly," I said, and passed out quick orders for the men to hide themselves along the trail where they could cover the approaching party.

I went to Laura's tent. She was rubbing lotion on her legs, and looking sulky. "Company's coming," I said; and told her what I'd learned. "Do you want to stay here, or come with me?"

"I'll stay here." She looked more animated now. "Maybe we can join them, Arch. They might get us out of this hell-hole a little faster."

"We're making good time," I said. I squatted on my heels in the entrance to her tent, smoking and studying her carefully.

"Well, is there anything wrong?" she said.

"No. But I'm wondering if you're dissatisfied with present company."

"Oh, don't be silly." She reached out and patted my hand. "Hurry up and bring the other men in though. Variety is you-know-what."

"Sure." I grinned at her and got to my feet. My pistol was loaded, so I

trotted out of camp and back to the trail we had covered in the afternoon. I saw where our men had taken cover along the way, and I found a spot for myself, in the shadow of a giant tree-trunk, from where I had a clear view of our trail for almost a hundred yards.

Then I heard sounds drifting toward me, the sound of low chattering. I frowned. It didn't sound like men talking. I got my pistol out and watched the trail.

Then I saw them round the bend. There were about fifty or sixty of them all right, but they were Martians!

I stepped out into the trail and waved to them; and was answered by a burst of excited chattering. They waved and hurried on toward me, and then I recognized the one in the lead.

He was Oroon, leader of the Martians from Sir Robert's camp.

THEY STOPPED about ten yards from me; and I noticed they were looking apprehensively past my shoulder. I glanced around and saw that Melville's men had stepped into the open, and their deadly atomic pistols were covering the band of Martians.

Oroon smiled slightly. "We aren't welcome, it seems."

"That depends. How'd you leave Sir Robert?"

"As you can see." The smile widened. "We walked."

"Why?" I said, impatiently.

Melville came to my side, nodded a half-friendly greeting to Oroon.

Oroon shrugged his sloping shoulders, and looked up at us gravely. "After the earthmen left, my men refused to stay on. The *Orando* had killed their spirit. Left alone with Sir Robert, they refused to work, so I am taking them to the city."

"Did everyone leave the camp?"

"No, six or eight stayed behind. Six or eight more afraid of the jungle than Sir Robert."

Or some idea of loyalty, I thought moodily.

"You want to join us?" I said.

"We would be extremely grateful if you would allow us to."

Melville touched my arm. "How in hell do we know we can trust them?"

"Well, it doesn't matter if we can't. We don't have anything they want. We're all in the same spot. They might as well tag along."

"Okay, if you say so," Melville said dubiously.

Oroon smiled gratefully. "We will make camp here, and set off with you in the morning."

The next day's march led us into strange country; and I realized we had got lost. Somehow during the wild flight from the area of the great cat we had taken the wrong turnings. I was for retracing our trail until we found familiar landmarks, but everyone else was in favor of pushing on. Men would rather make fresh mistakes than rectify old ones. Anyway, Oroon said he knew this country and could take us to the city; and he took over the guiding chores.

Two laborious days passed and I began to doubt that Oroon knew anymore about this section than I did. But he was smilingly confident so we followed his directions for another day.

I had a talk with him at the end of that night.

"You're pretty sure of yourself," I said. "I hope you're right."

I was sitting at the fire in the Martian camp, dog-tired and dirty. Oroon was squatting beside me, imperturbable and cheerful.

"Another day, you'll see," he said. "I'd better," I said.

He glanced sidewise at me. "What is this talk of *Orando* among the earthmen?"

"What do you mean?"

"We hear your people murmuring of a giant cat, a great beast with two heads which carried off a Lipar in each of its mouths." Oroon's eyes twinkled with merriment. "Is not that *Orando* talk?"

"It's no *Orando*," I said, annoyed. I knew he was laughing at me "I saw it. It was flesh and blood, but like nothing else I've ever seen".

"It's very curious," he murmured to himself.

"What is?"

HE SPREAD his hands out and smiled. "If a Martian sees a great two-headed beast it is *Orando*, which is to say, it is foolishness, superstition, and ignorance. But when an earthman sees the same thing then it is something else again. Eh?"

"My but you're subtle," I said drily, and got to my feet. "See you in the morning. And you'd better find that damn city, and stop speculating on what pompous fools we earthmen are."

"Nothing was farther from my mind," Oroon answered piously.

But we didn't find the city the next day, nor did we come across any territory I recognized. There was nothing but the giant trees, the swampy ground, the heat and the smell of rotting vegetation.

That night I limped over to Laura's tent, bitterly tired and disappointed. I had the feeling we were going in circles. There was nothing I could do about it. We were running out of supplies and patience; but we were in Oroon's hands. We couldn't make him find the city, even if he knew where it was. But what could be gain by wandering about in the jungle this way? My guess was that he was hopelessly lost, but afraid to admit it.

I shook the flap of Laura's tent and she answered listlessly: "Come in."

I pulled back the flap and sat in the entrance-way. She was looking at her face in a tiny hand mirror. When she glanced at me her eyes were hot and angry.

"Well? What excuse do you have this time?"

"None," I shrugged. She had been peevish and disconsolate for the past two days. "Oroon swears we'll be in the city by tomorrow night."

"And you believe him?"

"We have no other choice."

"You're all fools. I'd make him find the way, if I had to strip him down and whip his dirty hide to the bone."

"His men wouldn't like that," I said, slightly revolted by the venom of her tone.

"Oh, his men!" she said. "Are you afraid of a pack of ignorant Martians?"

"Of course," I said.

She was silent then, studying her face morosely. The wind and heat had roughened her skin, and lines of petulant irritation fanned outward from the mouth. I felt sorry for her then, and disgusted with myself for getting into this spot. "Just be patient a bit longer," I said.

"Patience, patience!" she snapped, hurling the mirror to the ground. "That's all I hear. You've got to get me out of this hideous jungle, or I'll go crazy."

"Okay," I said as gently as I could; but my own nerves weren't in the best of shape, and I felt like shaking her until she became more reasonable. But that wouldn't have helped, so I said goodnight to her and went back to my own bed roll.

I turned in and fell asleep immediately. Sometime later—I had no idea how long I'd slept—someone shook

my shoulder vigorously. I rolled over and saw Melville leaning over me; and I heard a threshing, frightened noise from the Lipars.

"Something's bothering them," he said, in a low voice.

I was on my feet by then; and my heart was working a little harder. I'm not superstitious, but my attempts to rationalize that monstrous double-headed cat had been unsuccessful. I was afraid of the *idea* of things like that existing in the deep dark depths of the jungle. Now it might be in this area, having trailed us the last few days; or it could be some other monstrosity.

"Get the men up," I told Melville.

I hurried to Laura's tent, woke her without ceremony. "Get up and put some clothes on," I said. "Something's at the Lipars. It might not be anything, but we won't take any chances."

She obeyed in silence, and I walked back to where Melville was standing. The rest of the men were tumbling from their bedrolls, frightened and excited.

"Let's have less noise," I said curtly. "Our best bet is to spread out into the jungle, away from the camp and away from the trails. Keep your eyes open, but don't do any careless shooting. I'm going down to the Lipars now."

There was silence for a moment; then Melville said, uneasily, "I'll go along with you, Arch."

Laura came from her tent and stood at my side. "Don't leave me here," she said. "Let me come with you."

"Okay," I said. She would be as safe with me as she would wandering alone in the jungle, I knew. "One of you men run back and wake the Martian camp. Don't scare 'em, if you can help it. If they get an *Orando* jag on they'll be more trouble than

they're worth."

I snapped on my torch and headed down the narrow trail we had made to the Lipars' feeding ground. They were about two hundred yards from us, and even at that distance, their frightened bleats could be heard clearly. Laura was at my heels, and Melville brought up the rear.

Suddenly I heard the sound of breaking branches above us and halted. An object plummeted down through the trees and landed in the trail not more than ten yards beyond us.

It was the lifeless body of a Lipar! *Something had hurled it more than a hundred yards!*

Melville screamed and ran back toward camp. Laura caught my arm and moved close to me. We stood that way a moment or so, watching the trail ahead, but there was nothing else in sight.

"Let's go on," I said.

"No, please—"

"We've got to. We're no safer in camp than out here."

I put my arm about her and we circled the huge lifeless form of the Lipar and went on down the trail.

Then a giant tree beside us broke with an ear-splitting crash; and fell across the trail before us. I leaped back out of the way of its branches, jerking Laura with me; and then things happened so suddenly and incredibly that my only impression was one of blurred horror.

Something like a giant hand shown down through the trees and swept us into the air. I felt my lungs and ribs being crushed by tremendous pressure, as we were lifted up above the tops of the giant trees. Laura was beside me, welded against me by the pressure that held us; but my both arms were free.

I still held my torch and gun. The torch was off, but instinctively I

snapped it on, and its bright beam shot out brilliantly.

I stared in dazed horror at a giant head that was level with my eyes,—a giant furred head with rows of eyes recessed in a beetling forehead, and a slavering mouth set with curved, yellow fangs.

The creature stood higher than the trees of the jungle and held us in his hand as if we were toys!

The rows of eyes were blinking against the powerful beam from my torch; and the great mouth was moving and a deep rumbling sounded from the creature's chest.

I swung my pistol up and fired three rounds at the creature's head. The explosions rocked the jungle, and the mammoth head disappeared in a flash of acrid smoke.

The grip about our waist slackened; and then I lost all sense of reality as I fell back toward the ground. Branches broke my fall half a dozen times, and a trailing creeper that caught me about the waist probably saved my life. It brought me up short about thirty feet from the ground, and then I slipped free and dropped onto a spongy layer of vegetation.

There was a great crashing noise reverberating through the jungle. Trees trunks snapped with rifle-like reports, and vines tore loose with sputtering hissing sounds. I sat up groggily, realizing that the noise was caused by the falling of the giant creature's body. High above me I heard a voice calling my name; I couldn't see anything in the darkness, and my torch was gone, but I recognized Laura's voice. She must have been caught by a tree branch, I knew.

Then a beam of light hit my face. I shielded my eyes and got to my knees.

"Melville?"

"I'm afraid not." It was Oroon's

voice. The light left my face and switched to the ground. In its glare I saw that Oroon and half a dozen other Martians were ringed about me in a semi-circle.

"You're all right?" I said, rather stupidly. I got to my feet. "We have to help Laura. She's caught in a tree."

Oroon was smiling. "I will decide what to do, Archer," he said.

"What the hell are you talking about?"

"We have reached the end of the trail," he said. "We have come to the place I have led you."

I faced the Martians, watching for their next move.

"Come on," I said gently.

I didn't hear the one behind me; all I knew was a sudden exploding pain at the base of my skull, and the feeling of falling forward into deep velvety blackness.

I CAME around in the traditional way. I opened my eyes, closed them again and wondered where the hell I was. My head ached, and my tongue felt like a woolen sock. Finally I sat up, pressing my hands to my skull to keep it from blowing wide open. I opened my eyes again, blinked them once or twice, and took stock.

I was sitting on a cold stone floor in a room large enough to accommodate twenty people like me. The ceiling was high above me, forty or fifty feet at least, and the other dimensions of the room were proportionately large. There was a huge, stone-slab door with no locks or bolts visible on the inside, and no windows. The walls were of stone, and beaded with moisture.

I got up, recalling the last few things that had happened to me; but that did me very little good. The creature I had killed was something I wanted to forget.

I tried the door, but it was locked solidly. That left me nothing to do but sit down and nurse my throbbing head...

The door swung inward somewhat later and Laura was pushed into the room. I sprang to my feet, caught a glimpse of three Martians beyond the door as it was closing; and then I was holding Laura in my arms.

"Are you all right?"

"Yes, fine. A little bruised here and there."

She drew away from me and sat down on the floor. Her hair was tangled, falling loose to her shoulders, and there was a cut on her cheek. She stared moodily at the cold stone floor.

"We'll never get away," she said.

"I just came around. Do you know anything about this place?"

She shook her head. "I was in a room like this until they brought me here. I don't know anything."

"You haven't seen Oroon?"

She shook her head.

I sat beside her and took her hand. "We'll have to wait on his pleasure," I said, bitterly.

We were silent a while. Then she said: "Was my husband working on anything else besides the soil, Arch?"

I looked at her in surprise. "That's an odd question. How would I know?"

She shrugged. "I had the feeling sometimes that his work was a cover-up for something else. That last trip back to Earth, for instance. What was behind that?"

"He never said. He just announced that he was going back for three weeks." I glanced at her. "Why?"

"There was no reason for the trip. I think he went back to get orders."

"Orders from whom?"

"Maybe he was with the Federation. He might have been in the Defense Department."

"Sure," I said, "and he might have

been an engineer, or a painter, or half a dozen things. You're only guessing, but I'd like to know why?"

"Oroon said—" She stopped and licked her lips.

"I thought you said you hadn't seen Oroon!"

"This was another time, weeks ago."

"You're lying." I caught her shoulders and jerked her around. "You've seen him since we got in this place. Haven't you? Haven't you?"

"Let me go! You're hurting me!"

The door swung in and four Martians swarmed into the room. They caught me before I could get to my feet. One of them hit me with a hard-rubber truncheon across the forehead; and I went down sprawling. I got hit a few more times and passed out.

WATER splashed into my face, ran into my mouth and nose. I began to strangle. Coughing I rolled over on my side. Something kicked me in the back.

"Get up!"

I was beginning to realize that obedience had its merits. I got to my feet shakily, but quickly, and saved my back from another bruising kick.

There were four Martians with me in the stone-walled room. They were dressed alike in green tunics, and wore visored caps. One of them nodded to the door.

"Come with us."

I went out the door and into a wide corridor. Two of the Martians got in front of me, and two got in back, and we walked along the corridor toward a massive double door at least a hundred yards away.

On either side of the corridor were doors secured by massive bolts, and from behind these doors I heard a variety of unpleasant sounds. There were scratchings, grunts, growls, and moans, and the air was fetid with the

stench of unclean animals.

We passed through the double doors, turning right into a narrower corridor, and finally came to a stop before a closed door. The advance guard knocked, and a voice inside answered, "Come in!"

The door was opened, and I was led into a small, austere furnished room, with two windows that opened to the sky. Oroon sat at a desk in this room, and beyond him, on a couch, was Laura. Oroon spoke to the guards and they withdrew. He nodded to a chair beside his desk.

"Sit down, Archer." He was very sure of himself, very much in command. I decided he had reason to be. I sat down and looked at Laura. She was cleaned up, her hair was combed and shining, and she wore fresh clothes. She met my eyes boldly.

"How'd he pay you off?" I said. "With thirty pieces of what?"

"Shut up, Archer," Oroon said. "She is a realist, I've discovered. She has tried to be helpful."

"I wrapped my life up in pink ribbons for that," I said. "I wrapped my life up and gave it to her. You'd think I would have known better."

"Everything was your fault, from the start," she cried.

"Oh sure. Let's not bicker. I don't want to end things on a sour note. We'll be gay."

Oroon shifted impatiently in his chair. "Your disillusionment is important to you, Archer, but I find it quite frankly a bore."

I told him what he could do about it.

"I am the one whose attitudes count, Archer," he said. "Try to understand that."

"Okay, okay," I said. Suddenly I didn't give a damn. "What goes here? Give me stage one in the Great Enlightenment."

"That is your role, Archer. I want

to know about Sir Robert. Whom was he working for? What were his orders? What were his suspicions about the *Orando*?"

I spread my hands. "He sounds like a man of mystery. But it's news to me. I was hired to guide him into the interior, that's all."

Oroon leaned back in his chair, grinning now; a suave, mocking little devil.

"We are entering the third act of an overly-long drama, Archer. Mars will free from the curse of earthmen within the next few months. That is what we will call the happy ending of our play."

"Am I supposed to get any sense from this?"

HE CHUCKLED. "It doesn't matter. However, you've seen the signs of our angry God with your own eyes, haven't you? You've felt the hot and fetid breath of great unnatural monsters blow over you, and you've looked into their hell-spawned eyes." He paused, smiling sardonically. "Or have you, Archer? Or was it all some wild nightmare?"

"I saw them," I said stubbornly.

"Excellent. They're clever products, aren't they?"

"Clever products?"

"Oh yes. We make them right here. We've learned so much from earthmen, you know. We start with a normal type of a given species—yourself, for instance—and by diet, rays, and certain immulsions and, er, other moulding processes, we change that type into something entirely different. We can make it grow to enormous size, make it sprout tails, extra limbs, rows of eyes. We could do this to you, Archer. How would you like to feel, for instance, the sensation of a horn growing from your skull, or perhaps, a great ridge of bony plate covering your entire body? We can do more or

less as we please, you see."

"The two-headed cat, and that other thing, they were once humans?" I said. And I could feel sweat starting on my face.

"Oh yes. We let them get too large, of course. They broke away from here, but since they are made to roam the jungle it didn't matter too much. Our new types are coming along excellently."

"But why? What's in back of it, for God's sake?"

"Oh that. Oddly enough we are again doing something that we learned from your people. We are inflaming our masses with fear and superstition. We give them evidence of the *Orando* as we loose our monsters on the land. Men are killed, Lipars are swallowed whole, and the stories spread like a straw-fire. Soon all the people of Mars are begging forgiveness of the *Orando*, seeking ways to propitiate its wrath. We tell them the God is angry, that he will destroy all the land, unless the earthmen are driven from the planet."

I stared into his smugly smiling little face. "It's just a political trick then," I said.

"One we learned from your history," he said, bowing toward me sarcastically. "We read of your Gods that promised eternal freedom for immediate slavery, and we learned a lesson. The masses of Mars can be compared to a great calm Ocean, placid and sunny on the surface, but full of strange terrors lurking in its depths. We are striking at those terrors, and soon the Ocean will be writhing in turmoil, and from that will come a tidal wave to sweep your kind forever from our land. But I grow poetic and irrelevant." His voice suddenly sharpened. "You don't convince me of your ignorance of Sir Robert. I will give you a period to refresh your memory, and then—" He shrugged. "I will have no choice but

to be extremely unpleasant."

He rose and came around his desk.
"I will accompany you back to your, er, quarters."

I glanced at Laura steadily for an instant; and she smiled and crossed her long slender legs. "Enjoy yourself," she murmured.

I looked from her to Oroon, then said, "It couldn't happen to two nicer people," and spat on the floor.

"I will remember that, Archer," Oroon said.

We left the room together and the four-man guard escorted us back to the great chambers where my cell was located.

"These rooms are built large enough to permit any expansion that the inmates, er, undergo," he said. "Would you care to see some of our choicer experiments?"

I said, as coolly as I could: "Sure, why not?" I wasn't giving him the satisfaction of scaring me; but inside my stomach felt as if it were being put through a wringer.

We stopped at a door on our right. One of the guards pulled a stone slab back. Another snapped on a light switch. I moved toward the aperture, stared into the room.

A GIANT worm lay coiled on the floor, bloated, glistening, motionless; flies swarmed over its slick green surface. The thing was two-feet thick, twenty feet long, and at its tip, was the unmistakable remnant of a human head, the eyes staring glassily, expressionlessly at the wall.

"One of Melville's men," Oroon said casually. "He could talk until a day or so ago. Not coherently, of course. His mind snapped when we put a mirror to his face and he saw what had happened to his body."

I turned away, sickened; but I forced the feeling from showing in my face. "Your mind is uglier than any-

thing you could create, I think," I said.

"I will remember that, too," he said lightly. "But come: we have more wonders for you to marvel at."

In the next cell was a giant bird-like creature, with a great horned beak, and immense taloned claws; but its scaly body was unmistakably human.

I saw eight or ten more specimens, each one more monstrous than the last. There were insects, spider-like and spitting, with massive armor-plate of bone growing about their skulls and chests; and a man's head on the body of an obscene animal with an engorged stomach and the legs of a frog.

When I was finally thrust into my cell, I sank to the floor and was violently sick. When I looked up Oroon was grinning at me from the aperture in the door.

"Pleasant dreams," he murmured; and the slab closed with a dry final click...

Time passed pointlessly. I had no way of knowing how long I'd been in this mad house. In the cell on my left Oroon was obviously developing something special. I heard screams coming from there that would have delighted the soul of the devil, and occasionally a heavy body slammed into the stone-slabbed wall with the force of an atomic-powered tank. However, those walls were built to last, and I wasn't afraid of the creature's getting out.

Then one day four of Oroon's men came for me and led me down into a dungeon where there were row after row of tanks about the size of coffins. Everything was sterile-looking, and bright lights beamed down from the ceiling. My clothing was taken from me and I was locked into one of the tanks. Hot water was piped in until it was almost covering my nose. Then it stopped. I lay there for several

hours, and occasionally I could feel new fluids being pumped in with the water. The color of the water changed from brown to purple to green during my immersion. Finally I was ordered from the tank. My clothes were not produced. Instead I was given a pair of cotton shorts and taken back to my cell.

Here I saw that changes had been made. Shackles had been bolted to the wall about seven feet from the floor. I was chained to these by my wrists and the Martian guards departed.

The damp stones pressed against my back and the floor was cold against my bare feet.

I wondered if step one in my transformation had begun; and in spite of the clammy dampness I began to perspire.

Time passed. I hung there until my shoulders began to ache, and pains were shooting down my back and legs. It was impossible to change my position, or ease the strain on my muscles. I started counting to help judge the time. I counted out an hour, then two, and then three! And then I gave it up, and in spite of my resolutions a helpless moan sounded in my throat.

More time passed. Then the bolts rattled and the door swung inward. Two guards came in, looked at my shackles, then walked out. A moment later Laura sauntered in casually, a pleasant little smile on her lips. She stopped in front of me and placed her hands on her hips.

"You don't look very comfortable, Arch," she said, with a bubbling little laugh.

"That should delight you," I muttered.

"It doesn't really. I don't want to see you suffer. That's why I'm here. I want to help you."

I LOOKED her up and down. She had on a filmy silken dress and

her black hair was shining like water in moonlight. Her eyes were never deeper, her lips redder, her body more tantalizingly feminine.

"Like you helped Sir Robert? Like you helped me with Oroon?"

"I had to make a deal with him. I'm not strong like you. I can't stand the idea of being uncomfortable." She came nearer me. "He thinks you know about my husband. For God's sake, don't be heroic! Tell him what you know. Unless you do he'll do something ghastly to all of us."

"To you too, eh?" I said. "I get the picture. If you can worm some information from me you'll be treated gently." I laughed at her. "I'm glad I don't know anything."

"You can't get away from him," she said, desperately. "He's got dogs the size of horses roaming about this building, and beyond them is a fifty foot fence with charged spikes on the top. You're helpless, Arch. Do you *want* him to change you slowly into some hideous monster?"

"Nothing matters a hell of a lot now, Laura. I threw away everything I had for you. I've got nothing left."

"Don't talk rot. We meant nothing to each other. I used you to get away from my husband. I used you to hurt him, that's all."

"You hated him, didn't you?" I said. "He made you feel cheap, didn't he?"

"Yes, you're right," she said in a low and bitter voice. "He was so kind and good and sweet! He wasn't human. His honor, his code, his decency! Maybe he didn't mean to, but he made me feel like the dirt under his feet."

"Well, we paid him back for being decent," I said bitterly. "He should have known better."

"Stop babbling about him," Laura cried. "Did he work for the Federation? Was he suspicious of Oroon?"

"Thank God I don't know."

Her hand flashed out, and her nails raked down my chest. I felt warm blood trickling down my skin.

"You fool! You damn fool," she raged.

The door swung inward again and three guards appeared. With them was Oroon. He nodded to Laura: "You may leave now." When she had gone, he looked at me speculatively, a faint smile on his lips.

"Do you have any preference about the kind of thing we make of you, Archer? You've already taken the preparatory step, of course. Would you like to be a toad? Or perhaps a rather odd type of human. We could make your body grow, and shrivel off your arms and legs, so that you'd be a squat monstrosity unable to move or feed yourself."

I didn't answer.

He said, "Very well, Archer. We'll plan something interesting for you. Goodby."

He and the guards left.

Sweat beaded my forehead, and my heart was hammering against my ribs like an imprisoned animal. I forced my thoughts away from the things I'd seen in the other cells.

Suddenly a jarring thud sounded against the wall. I could feel the stones tremble against my back. A dull roaring noise from the next cell raised the hairs on the back of my neck.

There was quiet for a while; then another massive blow landed on the wall. A fine shower of dust drifted down on my face and, glancing up, I saw that a jagged crack had appeared in the wall near the ceiling.

The roaring commenced again and the tremendous blows continued.

I struggled against the shackles in a sudden panic.

THE THING in the next cell began a high enraged screaming; and a

shattering jarring blow knocked a great stone loose on my right. The slab crashed to the floor and split into a dozen smaller pieces.

A giant hairy fist appeared in the foot-square aperture; and then part of an arm emerged. The hand opened and closed angrily, spasmodically, and then began feeling around on the floor. It closed over the fragments of stone, raised them and hurled them against the opposite wall; and the roaring sound increased in fury.

The hand and arm twisted about and searched along the wall, coming closer to me with every second. I twisted against the shackles, tried to pull free; but I might as well have tried to move a mountain from my back.

The hand was the size of my whole body, and the fingers were two feet long and thick as my arms. It scraped along the wall above my head, the fingers clawing at the stone, and occasionally tightening into a fist and raining pile-driver blows against the wall. One of the fingers brushed my hair but I ducked my head as low as possible, and the hand passed on its furious search.

Another and heavier blow landed against the wall and I realized that the creature was hurling its body about frantically. Then, a section of the wall caved in, and the stone to which my right wrist was shackled split and crashed to the floor. I swung away from the opening, fastened only by my left wrist now.

The creature battered at the edges of the six-foot hole with its other hand; and suddenly half the wall crashed inward and a choking cloud of powdered dust filled the cell.

I had only a brief and incoherent impression of what happened next. A giant body forced itself into my cell, and I was crushed against the wall by a furred arm. But the creature didn't

see me, for it lunged at the front wall of the cell with a bleating scream of rage, and burst the door open with a series of incredible blows. Next it raised itself on stubby legs and beat away the upper part of the wall; and then it slipped into the corridor and disappeared.

I spit powder dust from my mouth and climbed onto a splintered rock and examined the shackle that held my left wrist. It was still firmly in place in the wall, but the stone to which it was attached was split.

I tugged at it with all my strength, and the tiny split lengthened suddenly. A creaking sounded above me; and I glanced up and saw the entire wall was ready to collapse. Another tug widened the split, but the ominous creaking grew louder.

I rested for a moment, panting heavily. My wrist was bleeding, and the clouds of powdered stone made me gag. Outside I could hear shrill shouts, and occasionally, the furious bleating of the creature that had smashed through my cell. I looked at the wall again, wondering if I had a chance to get clear if it crashed down on me; and wondering too if another tug on my shackle might not precipitate a complete cave-in.

Suddenly, I thought, what the hell! Dead, I'd be better off, so what was worrying me!

I threw my entire weight against the looped-iron shackle and it pulled free abruptly; and the stone in which it had been imbedded split into a hundred tiny fragments.

An ominous rumble sounded, as the wall shifted and began to sag.

I leaped from one stone to a higher one and dove for the shattered doorway; and as I did the wall fell into my cell with a roar like thunder.

But I was in the clear, in the corridor.

DIRECTLY outside my door was the crushed and lifeless figure of a Martian guard, and beside him lay an atomic pistol. I grabbed it and raced down toward the double doors at the end of the corridor. They were sundered and broken. I ran through them, not knowing which way to turn, but determined to keep running until I was free or dead.

I remembered that Oroon's office had windows in it, windows from where I had been able to see the sky, so I turned right and raced along the narrower corridor to his office. I opened the door and charged inside, ready to fire; but the office was empty. Closing the door, and snapping the lock, I went to the window and broke out the glass with the butt of my gun.

From the sill to the ground was a twenty foot drop. I looked over the terrain carefully. Directly beneath Oroon's window was a small enclosed yard; but a pathway led from that to a large courtyard, encircled by a towering spiked fence.

I swung my legs over the cell and dropped to the hard-packed ground. Trotting through the pathway, I came to the great courtyard which apparently circled the cluster of buildings. Sun beat down on the packed ground, and there was no cover between where I stood and the great fence, beyond which I could see the green leafy jungle. I hesitated a moment, crouching in the shelter of the building. There were undoubtedly guards about, and I'd be a perfect target for them if I attempted to make the fence. And once at the fence there was no way to get over it, that I could see.

Nevertheless I was preparing to risk it, when I heard a wild unearthly clamor approaching. Suddenly, the great creature that had burst from my cell came into sight around the angle of a building. I could see what it was

now—a gorilla-like beast with stubby legs and arms that dragged in the dust as it ran. It was fifty or sixty feet high, and its head was nightmarish in its obscene ugliness. Its nose was a trunk-like affair, six or eight feet long, and no lips covered the giant curving teeth.

It ran screaming toward the fence and bounding after it came six or eight creatures that were like Earth dogs, except that they were larger than horses and had great over-sized heads.

One of them leaped onto the back of the giant beast and sunk its fangs into the creatures shoulder. The beast whirled about madly in an attempt to dislodge the attacking dog; and then it reached around with one hand, caught the animal by the throat, and jerked it free. With a shrill cry it hurled the dog against the fence, and the stout saplings bent and smashed under the impact.

Two more dogs leaped to the attack, snarling hideously, and the giant gorilla turned from them with a bleating cry and lumbered away out of my sight. The dogs raced after him, obviously driven mad by the smell of blood.

I stepped into the clearing, glanced both ways, and then set out on a dead run for the broken fence.

I had covered half the distance when I heard the spine-chilling baying of Oroon's hounds; and glancing over my shoulder I saw two of them racing toward me on my left.

I stopped, turned and fired at the one in the lead. Its head evaporated in a burst of smoke, and the body sprawled to the ground. The second hound paused to sniff at the lifeless body, then charged on. But that extra second gave me another start, and I was through the gaping hole in the fence before the dog could get within ten yards of me. He put his head through the opening, but his body was

too large to push through; and he thundered futile noise at me as I turned and trotted down the trail to the jungle....

I travelled all that day without stopping. The jungle flies attacked my naked body, and saw-like vines cut me in a dozen places; but I kept going at a steady trot. I planned to backtrack until I found familiar ground, and then head for the city. I wasn't through with Oroon yet; I wouldn't be through until I'd paid him in full, somehow, for what he'd done to me and the men from Melville's crew.

But my rage was no substitute for provisions and water. I slept that night covered with huge leaves, and started out again the next day after sucking some liquids from the jungle vines.

I remember that day, and the next night; but after that I lost all sense of time and direction. I knew I was wandering hopelessly, but I couldn't help myself.

Finally I fell and didn't rise. I felt the cool slimy vegetation of the jungle floor against my cheek, and ahead of me, on a level with my eyes, I saw an ugly bug, nearly six inches long, staring at me with tiny, jewel-like eyes.

That was all I knew.

“TURN HIM over.”

Hands touched me, rolled me onto my back. Water, blessed water, trickled down my throat. I lay still for a moment gathering strength; then I opened my eyes.

Sir Robert was looking down at me, and a Martian was kneeling at my side with a gourd of water.

Sir Robert Andersen, my boss!

He needed a shave badly, and his clothes were soiled and torn. But his eyes were cold and bright, and his

manner as composed and formal as ever.

"I should shoot you, I expect," he said.

"That's right," I said.

He turned to a Martian at his side. "Take care of him. We'll stop here for a while..."

When I was able to take some food and sit up, Sir Robert came and stood before me. "Where is my wife?" he said, in the tone he would use in a drawing room.

I told him everything that had happened, leaving out nothing.

Then he said: "Of course, I'm with the Federation. We've been closing in on Oroon and his gang of fanatics for several years. And Laura joined him, eh? I don't know quite whether to believe you or not."

"I wouldn't if I were you."

"Laura was not the best woman in the world, but I loved her, Archer. That is perhaps an odd thing to be saying under the circumstances: but I want you to know that I understand how things were. You did not play an heroic role, it is true, but Laura could make men do things they normally might not do. We won't mention it again. Can you guide us to this place of Oroon's?"

I could only nod. Nothing could have possibly made me feel worse than his understanding.

There were only three Martians in Sir Robert's party. He had followed us by Lipar until the animals had bolted off one night; and then they had come ahead on foot.

We set off that night and travelled all night. After a two-hour rest we set off again, and by the next sun-down we were within a mile of Oroon's laboratories. From a clearing that stood on a rise we could see the tops of the buildings.

"Well, what now?" I said.

"Retribution," Sir Robert said in a cool voice.

He unstrapped his wrist watch and removed the rear plate. Inside was a tiny microphone. He put it to his mouth, and said in a clear precise voice, "I think we can proceed now. Coordinates follow." He spoke a series of numbers into the radio, then put the watch to his ear and listened a moment.

"Yes, quite sure," he said, speaking again into the radio. "I've talked to a person who'd been there. It's the source of the *Orando* without a doubt."

I heard them then, far-away in the Northern sky, buzzing toward us like peaceful bees. Sunlight glinted on the sleek hulls, on the rocket nacelles, and on the stuffy mouths of atomic cannons set in banks along the wings.

Fighters! Rocket fighters!

"Wait a minute!" I yelled.

Sir Robert turned to me and I saw from his eyes that he had thought of her, too. He said, "Yes?"

"Nothing," I said.

Sir Robert raised the watch to his lips again, and said: "Attack"

THE LEAD rocket fighter peeled off in a dive and slanted in toward the laboratories; and its atomic cannons opened up with a deadly blast.

For another hour the attack continued, and then the squadron leader signalled Sir Robert. He listened for a moment, then said: "Very well. You may land at the following coordinates to take us aboard." He paused then said: "Good work!"

"It's all over?" I asked him.

"Yes, all over. I want to take a look, however. There's no need for you to come along."

"I'd rather," I said.

"Very well."

We walked along together, saying

nothing at all, two men on the way to a grave.

The laboratories of Oroon were powdered destruction. We went inside the high fence and stared about at the wreckage of the buildings, the lifeless remains of a fantastically evil project. Circling the buildings we came upon the bodies of the giant hounds that had guarded the stockade.

We stayed for an hour or more. I couldn't make out what thoughts were passing through Sir Robert's mind. He seemed reluctant to leave, however.

Finally, he sighed gently, and said, "Let's get back. We'll send in a few crews for a final check."

I was turning when I suddenly saw a slithering movement behind a ridge of ruins. A spitting noise split the stillness, and a sleek animal trotted into sight. It was coal black, and shining in the sunlight; its eight legs were swift and graceful, and its face was almost a caricature of feline viciousness.

It trotted toward us almost shyly, no larger than a North American puma.

"It looks quite harmless," Sir Robert said.

The cat purred and came closer on mincing paws.

And suddenly I knew who it had been: I *knew* that this was Laura.

Sir Robert knelt and patted the

ground gently with the flat of his hand. "It's a wonder she survived the blast," he murmured.

I had thought of that too. Possibly she had been in one of the dungeons, immersed in a deep tank during the attack.

I watched her draw closer to Sir Robert; and then I saw the muscles in the graceful shoulder bunching stealthily.

"Not again!" I yelled, and swung my gun up.

The cat had leaped at Sir Robert's throat, a vengeful whine of rage breaking from its throat; but my shot caught her in mid-air, destroying her in one violent second.

Sir Robert climbed to his feet, frowning. He stared at the cat's body, then said slowly: "What did you mean, when you cried, 'Not again', Archer?"

I shrugged. "I hardly know."

"Queer," he said, thoughtfully. "The way it crept on me to attack! It was oddly like something I've experienced before."

I watched him in silence.

Finally he said, "Thank you, Archer. Shall we return now?"

Together we left the stockade where already flies were winging greedily for the body of the cat.

THE END

WHAT PRICE SCIENCE?



By JOHN WESTON

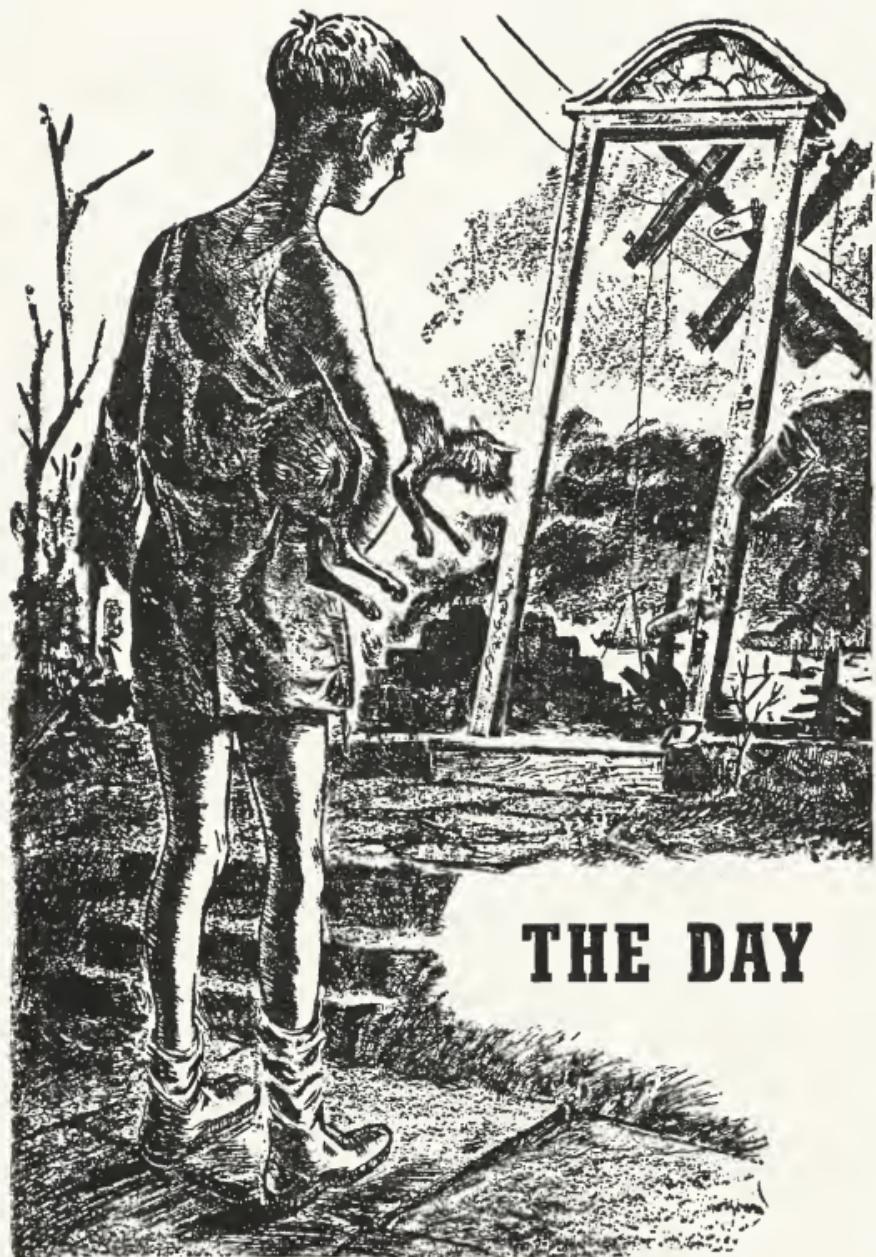


WHEN YOU use the word "science" nowadays, you mean physics. The study of that art which embraces almost everything on Earth, ranging from crystals and gasoline engines to spectroscopy and cookstoves, is becoming more and more distorted. Not enough research is being done in the science. Instinctively you might think that that last statement isn't true—but it is.

It's true that if you mention physics you can get an appropriation as big as a house. Almost any organization will be glad to sponsor a piece of research. But just dare to suggest that you intend doing

the work in some field that isn't directly or indirectly connected with military work or warfare—and you're out.

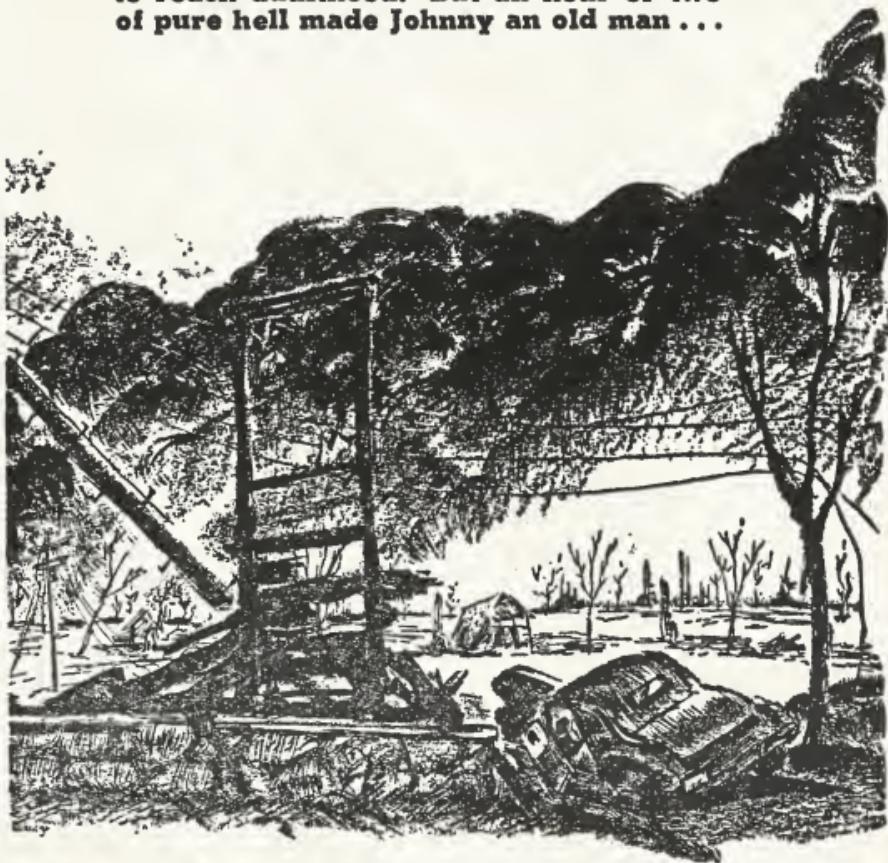
For that's the trouble. We're spending billions on military research in physics but we simply aren't doing enough in other fields. We're leaving that vital important work to the Universities and to little outfits whose endowments wouldn't buy a gold-plated wrist-watch. Wake up America, and make sure that at the next meeting of the American Physical Society, that we hear something about the nature of the electron—not only the atomic bomb. We want both!



THE DAY

Even the cat in Johnny's arms seemed appalled by the utter desolation

Usually it takes years for a boy
to reach adulthood. But an hour or two
of pure hell made Johnny an old man . . .



THE BOMB FELL

By Leslie A. Crutch

JOHNNY kicked his way to school that bright spring morning, punishing a small round stone unmercilessly as he vented his boyish spleen.

"I wish I didn't have to go to

school," he was grumbling. "I wish it'd burn down. I wish the teacher'd get the mumps, or chicken pox, or somethin'."

He halted to look into the window of the big hardware store. What a

fine display of fishing tackle they had. Leaning against the curved corner where it turned in toward the entrance, he could hear the radio set on display within. Absent-mindedly he listened to the voice of the newscaster.

"...President Green remained in his office during the night, awaiting the latest reports of the tense European situation. Orders have gone out to all airdromes, cancelling all leaves..."

Johnny yawned. Ho hum! Adults were funny, sticking around a radio like that when it was so nice out. The sun was sure hot today. He'd like to go fishin'. He wondered if Pop would be home early like he said, to paint the garage. He liked painting.

The school bell yammered, its amplified electronic voice snapping him to awareness of the world he was a part of. He started to run, books swinging from the strap, banging against his legs, striking passers-by who turned to look after him, smiling.

He just made it. Luckily the school was just around the next corner. Puffing like one of the obsolete steam engines they had in the amusement park, he raced up the broad concrete walk and through the closing front doors. The caretaker shook his head at the human jet plane that shot by him, up the stairs, round the corner, into the room, to flop breathlessly into a seat half way up the aisle.

As the class mumbled its prayers, led by Miss Wilkinson, Johnny scanned the room, furtively, out of the corners of his eyes, wondering if any of his classmates had had the nerve to skip. Yep, Bert White was missing—and by golly, so was Tom Ketcheson. He counted them off in his mind: eight, nine, ten— Gee Whillikers, fifteen of them absent!

When the prayer was over, and the

salute to the flag, the door opened, allowing a boy to slip in. Miss Wilkinson saw him.

"You're late, Tom," she said, gently reproachful.

"Yes, Miss Wilkinson. My father had to leave."

They all knew what that meant. Things must be bad, thought Johnny, if they had had to send for Tom's pop. He was a colonel in the new air force, and had been home on leave. Suddenly he remembered the other boys' fathers were also officers, or enlisted men. Had they been sent for, was that why they hadn't come to school?

Miss Wilkinson was nervous. She kept dropping her chalk, and she made some funny mistakes in arithmetic that made the class snicker. And when some of the kids kept looking out of the windows, to the horizon and up at the sky, she said nothing. In fact, while they were studying, once, she stood near one of them, looking kind of white and scared. Johnny began wishing he'd listened to the radio with his mother and dad that morning. Something had come over it to make them worried, too. He wondered what it was.

AT TEN-THIRTY something happened that he knew he would never forget. He was sitting, his head on his hand, half asleep, looking out of the open windows. Far away, over the tall buildings of the downtown section, he could see needle-like fingers poking into the sky. They were the tall stacks of the huge plants about twenty miles away, staining the heat ridden horizon with smudgy stains. Suddenly, a terrifically bright light lit up the whole sky, making his eyes hurt. While he was rubbing them, he felt a blow, a hot, heavy, pushy feeling. Then the noise came. The whole school shook and decora-

tive, pastel-toned tile fell from the high ceiling. The girls started to cry and even Miss Wilkinson had tears in her eyes.

When Johnny could see again, he looked toward the place he had seen the light and there was a huge black cloud rising high in the sky. It was small down near the ground, but up above it rolled and boiled and swelled so it looked like the biggest toadstool ever.

As he watched, openmouthed, there came another terrible flash of the intense brightness, followed by the heavy breath of heat and the soul-shaking sound. This one came from another point on the line that divided earth and sky, over toward where there were more big factories, making very secret things that people didn't know much about. He scratched irritably. His skin was prickling and felt like he had a pretty bad case of sunburn. Another heavy cloud, big-topped, slim-based, was slowly climbing.

A wailing sound rose through the still morning air. It sounded kind of spooky, like a wind blowing through trees at night. Then he realized it was the sound of many people shouting and crying.

Miss Wilkinson shook him by the shoulder and pointed toward the door. He saw the others were leaving, hurried, yet orderly.

They got down the wide stairs and outside to be greeted by a new sound, equally frightening. It was a distant sighing, high up, that was steadily growing louder, nearer. He looked up, but could see nothing.

"Run!" Miss Wilkinson was suddenly crying. "Get into the cellars. Quickly now. There isn't a second to lose."

The children ran toward the concrete frames in the ground. Johnny and his chums had made many boyish

wagers as to their purpose. What interest they had caused, when, only a few short weeks before, crews of men had suddenly invaded the grounds, disturbing the classes with their loud voices and clanking machinery. Then they had departed, as mysteriously as they had come, leaving behind them the deep, concrete-walled, concrete-roofed rooms. The principal had talked over the amplifying system, telling them they were for special classes to be held underground some day. He had said when the time to use them came, the teachers would tell them to go to the cellars quickly, and they must—without hesitation, without delay.

Johnny stumbled, lurching sideways. He threw out his arm to catch himself, then the ground opened up and he tumbled into the deep cut that had been made for a new water main to the school. The breath jarred from him. He struggled to his feet and looked up.

He could see the bright blue sky and he was starting to shout when suddenly the blue was wiped out by a terrible wave of liquid fire washing overhead. The ground shook, sending him sprawling again. He could see—for one short second—pieces of boards, bits of clothing, even chunks of masonry sailing by. He thought for one brief instant, "It must be a tornado," before everything went black.

WHEN HE came to, it was night.

Sitting up, he nursed his aching head. His skin felt dry and burned and he had a terrible thirst. He got to his feet and found that, by standing on a large chunk of concrete that had fallen in, missing him by but a few inches, he could just reach the brink of the hole. He clawed for some time, hardly knowing what he was doing. Finally he managed to get a

hold and drew himself out.

The school—where was the school? It was gone. In its place was nothing but a strewn mass of broken masonry. He stumbled toward it, beset by a sudden sense of loss.

"Jeepers!" he thought. "I didn't really mean it!"

Turning slowly, he looked about and saw he could see for a long ways. For a minute this didn't strike as being unusual. Then he cried aloud. Everywhere was desolation, utter ruin, half obscured here and there by columns of smoke, through which red tongues licked.

Suddenly he was afraid. He wanted to get home to see if his mother was all right. He started to run, but progress was slow, halting. Rubble tripped him up. Fires forced lengthy detours. Twisted piles of scrap that had once been automobiles huddled here and there. Once he passed something that sat on a fragment of curbstone, clad in tattered shreds of clothing, moaning as it rocked to and fro. He saw its face, briefly, and his stomach turned over painfully.

There seemed to be hardly anything alive. A dog ran shrieking from his path, caroming blindly off wreckage, rolling over and over in the dust when its legs failed it.

Eventually he reached the street he lived on, almost beyond feeling. It was no better. Here and there a bit of wall still stood, miraculous paradox amid ruin. He stumbled wearily down what had once been a neat tree-lined street, until he reached where his home had stood.

But there was nothing left. Not a wall remained, not a shrub of the hedge his father had so lovingly tended. It looked as though a giant steam roller had passed this way, flattening everything, grinding it to dust, leaving only a hole where the cellar had been, from which a twisted bit of

piping beckoned like a skeletal finger.

He didn't cry. He couldn't cry. Walking toward what had once been a comfortable home, he stared straight ahead, eyes dry, a tight feeling in his throat.

The front steps were still there, leading up their four steps to the platform formed of flat stone slabs, before which a door had been. A door with tiny stained glass windows and a huge, funny looking brass knocker. He gulped.

Slowly he sat down. Chin dropped to rest in a grimy hand. Eyes sought the horizon, bespeckled with peaceful looking stars, a pale glow heralding a rising moon.

A huge grey cat poked a frightened head around some debris, meowed disconsolately, looked up at him, then ran up the steps to crawl into his lap. Fingers caressed the fur and a friendly purr answered his administrations.

"You lonesome, too?" he asked. The cat rubbed his head against his leg. "Guess maybe your folks are gone too, huh?"

Far off toward where the harbor lay, where the big factory town was, he saw the beam of a searchlight shoot up, explore the night sky tentatively, then flick off. Then he heard the sighing sound of many planes, shooting high overhead. He strained his eyes but was unable to see any riding lights.

"I wonder if pop will come," he murmured. The cat stirred, licked his fingers.

SLLOWLY the night passed the way of all nights since the world began, retreating finally before a lightning western sky. When it was light enough to see, he rose and, carrying the cat, walked slowly down the walk, turned up the street and, without a

backward look, headed toward the open country. He wasn't sure why he took that direction. He knew only that some faint compulsion seemed to force him to leave the shambles that had been a living, breathing community a short time before.

He walked for a long time, hardly conscious of his surroundings. Gradually he became aware of a gnawing hunger, a torturing thirst. And above it all, deadening his sensibilities, an aching loneliness that made him embrace the animal tightly from time to time. He saw nothing but wreckage, and the odd human, poking blindly about, stunned, unfeeling. He wondered for a time over what looked like a ghostly shadow, imprinted faintly on what was left of a concrete wall. He found a hole in the pavement filled with water by a slowly leaking main, and drank from it.

Once the sound of planes made him huddle in a ditch beside the road. He didn't know what he must fear. Only the knowledge that everything was strange. They shot by overhead, many of them, bearing no insignia, ominous, unfamiliar.

All this time he carried the animal, seeking in it comfort to fend off the loneliness that gnawed at his mind. Only once did he put it down, and that to drink. The cat didn't go away, but huddled close against his body and mourned softly until he picked it up again.

His skin itched and he scratched a great deal, but it only made the sensation worse. Finally he gave up.

It was late in the afternoon, judging by the sun, when he worked his way up a gradual slope and saw the farm house. It was all that remained of the buildings. He didn't know how it had escaped, since the other structures lay scattered for yards and yards over the fields.

Looking for signs of life, he slowly approached the door. A dog lay in the front yard, lifeless. The door, which faced the city, swung on one hinge, blackened, blistered as though from intense heat. No glass remained in any of the windows.

Johnny called out, loudly, listened, then called again and again. Peeking inside he saw a room filled with dust, littered with broken plaster from the ceiling and walls, the furniture strewn about.

He went around to the back. There he found a horse, huddled against the wall as though for comfort. It sensed his presence and tried to whinny but all that came forth was a sort of sobbing sound that made Johnny feel bad. Dried blood stained the animal's nostrils, and the hair on its foreparts was all gone, leaving the skin red and boiled looking, like the lobsters his mother used to prepare for dinner. It stretched its neck, slamming its head against the wall. It was blind.

The back door was closed. Placing his hand against it, he shoved it open on hinges that were well oiled. Inside he found a kitchen, with pots still on the stove, rolled-out dough on the table, a carton of smashed eggs on the floor.

Hunger grew sharply in him and he searched the kitchen for food. There was bread in the pantry and he took it out, also some cooked meat and a whole bologna sausage. This he tied up in a towel from a drawer in the table. In a frying pan in the warming closet of the stove he found some raw liver, which the cat did away with with great dispatch and efficiency.

HE WAS about to leave when the door leading to the rest of the house swung open and a girl appeared. She was about his own age, he reckoned, and she had red hair and a lot

of freckles across her nose and she looked pretty scared.

"Who are you?" Johnny asked.

"I'm Marianne. This is my home."

"I guessed that," he told her with all the superiority of the youthful male.

"Then why did you ask?"

He wasn't going to get anywhere this way, he told himself.

"Where's your mom and pop?" he asked.

Her face, which had been showing some animation stiffened and her upper lip trembled. She brushed the back of her hand across it and gave a sort of sniff.

"I guess they're kinda dead."

"Kinda dead? Doncha know if they are or not?"

She nodded.

"Dad's down by the barn." She looked out of the window and amended her statement. "Where the barn was, I mean. I saw him go into it and then the big noise came and it wasn't there anymore."

"Where's your mom?"

"She was going to make a pie when we saw the cloud way off there. We went to the window to see better, only she was right up close. I guess that's why I didn't get hurt. I was looking around her when the light came. She threw up her hands and made a funny sound, then she started to run around, bumping into things and falling down. I led her to the bedroom and she fell down and never got up again."

He tilted his head, listening. The planes were coming again, or maybe they were different ones. And there was another sound. A heavy kind of rumbling, like big guns, only more steady. Going to the window, he looked out. Toward the city he could see a low cloud of dust coming this way. Then, where the road went up over a little elevation, he saw the big things, a lot of them. They looked

like the tanks they had pictures of in the books at school, only these were much bigger. They were coming pretty fast, too.

"I guess we better go somewhere else," he said, and she nodded. They ran from the house, hand in hand.

"Maybe we can hide there." She pointed to what looked like a small bush, leading back from the house.

"It's pop's orchard. There's a kind of cave there, too, that an old river ran into before it dried up."

When they were safely among the neat rows of tree corpses, they halted and looked back, gasping for breath.

The cavalcade of tanks rolled up and one of them turned out and approached the house. Some men in strange uniforms got out. From where they were they looked black, like the planes, and were comprised of a baggy pair of breeches, sloppy coat with a belt and a brimless sort of hat or cap. There were markings on the collars but Johnny couldn't make them out. Some went into the house while the rest either stood and talked or prowled around, kicking pieces of rubble and laughing loudly. One of them found the old horse and called to his companions. They took out side arms and made practise shots at it till it finally fell.

"I hate them!" sobbed Marianne, intensely. Johnny nodded mutely.

"I guess maybe they're the ones who killed our parents," he said. "They're not our soldiers."

Smoke started coming out of the door, followed by red flame. Marianne would have jumped up if he hadn't held her down.

"They're burning my mom," she cried.

He watched the house burn and hot tears rolled down his dusty face. The cat, sensing his grief, cried softly and crept close.

"I guess maybe they're gonna burn everything," he whispered, little re-

alizing how full of prophecy the words were. "I reckon this is war, Marianne, like the history books tell about. Only worse."

She nodded. The tank started up with a muted roar and rolled off down the highway after the others.

Johnny watched it go. Looking up, his boyish shoulders straightened.

"Wasn't long ago," he said, "that I was wishin' the school'd burn down—that summer vacation was here." He sighed heavily. "I guess, Marianne," he went on, taking her hand and starting off into the orchard, "maybe vacation has come a little early this year."

THE END

CYLINDERS OF DEATH



By WILLIAM KARNEY



JERRY SPOTTED it first. I missed the quick flash of sunlight that revealed it to him. But not Jerry. He had eyes like a hawk.

"Mike," he said, "look over there. What the devil is it?"

"Where?" I tried to spot what he was referring to. Then it caught my eye. Not two hundred meters away was a smooth-surface black cylinder which from its glossiness must have been metallic. We were drifting slowly across it.

"I don't get it. Patrol didn't say anything about stationary cylinders."

We were both aboard the S-7 a typical Patrol craft keeping watch along the Luna run. They were putting in the big observatory and rockets were thicker than bees. With the frequent troubles, meteoric knock-outs and occasional minor collisions the Rocket Patrol had its hands full. But this was a new one.

"Match the velocity and position, Mike," Jerry said. "I'll put on a suit and give it the once over."

"Right," I agreed and in a matter of minutes I'd blocked in the strange object. It wasn't any trick to match to it, because I quickly discovered its angular velocity was matched to Earth's. It was literally hovering over a single spot on the planet.

Jerry went "outside" in a cumbersome "boogeyman", a heavy metal, insulated oxygen suit. He remained outside a half hour toying and tinkering with the cylinder. It was about twenty feet—oops six or seven meters (I can't remember to think in metric terms)—long, three feet in diameter and looked for all the world like a miniature rocket. I could even see exhausts, but they weren't flaring and besides the strange vessel was too small for human occupancy anyway.

"Well, that takes the cake," Jerry said when he came in. "Mike, you're looking at the most beautiful specimen of remote controlled rocket I've ever seen. It's a watchmaker's dream. And sitting right smack in the heart of it is a Hydrogen

Bomb!"

"Whose?" I exploded.

"You don't think they'd put markings on it, do you?" he asked cynically. "But it's obvious. That thing was made in Sinkiang or I'll eat this helmet. The Pan-Asians are really mad. That's for sure."

"I'll put through a message to the Mother-SHIP right now," I said.

"Code it, for God's sake!" Jerry shouted. "We don't know how many more of these things are floating around. While you communicate, I'll disarm it. I'm taking a torch with, this time."

He went outside again, and I touched the encoder stud, spilling the story quick and simple to Brain Central aboard the Mother-SHIP.

"...Disarm and sweep for more at once," flashed back the receptor. "All patrols are out. This is a general plot. Follow through as per orders."

Jerry came in a few minutes later, a fused mass of mechanism in his hand.

"The trigger's out he said. "She's as harmless as a new born baby."

"Brain Central wants us to sweep for more."

There's not much more to say. We went through carefully circling the planet for more "mines." We raked up seven and other patrols took in another ten. A thorough radar sweep caught them all and the secret mine-layer was caught a few hours later as it went about its nefarious work. It was a Pan-Asian job naturally, though they denied it completely.

Things would come to a terrific head shortly I knew. The inherent dangers were too great. Try as we might sooner or later there'd have to be an atomic battle.

"Say Mike?" Jerry asked when the immediate excitement died down. "What were the local coordinates of that first baby we nabbed?"

"Just a minute," I replied, "I've got them right here. Oh-oh! That one was floating right over Greater Los Angeles!"

Jerry gave a grim sigh. "Thank God," was all he said...

ONE OF OUR PLANETS



Evan as Captain Maddigan swung the rope, he knew this was somebody's idea of a gag

IS MISSING!



By Mack Reynolds

If you find a missing planet, let it alone. The reward will probably prove to be a one-way ticket to a psychiatric ward!

THE ASTRONOMER Royal, Sir Horace Peters, M. A., Sc. D., F. R. S., blinked his eyes in surprise and announced to his assistant, "Mars has disappeared."

"I beg your pardon, sir?"

The other glared at him. "Confound it, Feathers, didn't you hear me? I said that Mars has completely disappeared."

His assistant looked at him apologetically, wondering inwardly what

was getting into the old boy. "Yes, sir, I heard you. Undoubtedly it will be visible again in a moment."

The glare intensified and its effect was increased by the appearance of a red flush creeping up Sir Horace's neck. Before saying anything further, however, the astronomer turned again and applied his eye to his telescope. He stood motionless for a full five minutes before confronting the other once more.

"Hah," he snapped triumphantly. "Just as I said. Mars has disappeared."

Feathers was beginning to get alarmed. This was unprecedented and Feathers didn't like things to be unprecedented. That was why he'd chosen astronomy as a vocation; he couldn't think of anything in the way of a livelihood that would face him with fewer precedents than astronomy.

"Are you ill, sir?" he asked, solicitously.

"Confound it, Feathers, will you stop being so dense? I announce to you the most startling fact to confront the science of astronomy since Galileo—and what do you say? You ask me if I'm ill."

"I don't understand, sir," Feathers said desperately. "You said that Mars had disappeared and I said undoubtedly it would be visible again in a moment."

The Astronomer Royal attempted to control himself. His face was red now, but he said softly, "I didn't say the skies were darkened by clouds; I didn't even say that atmospheric tremors were bothering my observations." His voice began to go high. "I said that *Mars has disappeared*, and, by Jove, I mean that MARS HAS DISAPPEARED!"

His assistant stared at him for a long moment. Finally he laid down his

pencil and said timidly, "But, Sir Horace, Mars can't disappear. There must be some mistake."

The other took a handkerchief from his pocket and wiped his forehead. "Yes, yes," he said, "I must control myself. There must be some error. Forgive me, Feathers."

"Certainly, sir." Feathers picked up his pencil and went back to his notes.

Sir Horace reapplied himself to his telescope for another full ten minutes. Finally he straightened and turned back to the other again.

He said deliberately, "Feathers, I am using a telescope with a power of seventy-five. We are at a most favorable opposition. It should appear to be approximately as large as the moon is when seen by the naked eye. The sky is clear; the atmosphere is unusually free of tremors tonight. I tell you again, Feathers, *Mars has disappeared*."

Feathers groaned inwardly. It was weeks like this that made him sorry he'd ever chosen astronomy. It was bad enough, the mobs of laymen who besieged the observatory these days and nights, hoping for some opportunity to view the rocket ship in which the three Americans had taken off in an attempt to circle Luna and return. Yes, that was bad enough, but now he had an obviously insane man on his hands.

"May I see, sir?" he said in what he hoped was a soothing tone. Weren't you supposed to humor a psychopathic case?

He bent down over the eye piece.

Finally he straightened again, his face pale. "By Gad, Sir Horace, you're right. Mars *has* disappeared!"

ON THE other side of the globe, General McCall ran both his hands through his hair wearily then

stuck them in his pockets and slumped to a stool in dejection. He was the youngest general in the army but he felt very old now.

"It's them, all right," he said. "They're coming back. I wonder what the hell it was this time."

The sergeant at the radio looked up at him. "Sorry, sir; still can't raise them. Haven't been able to get a thing since they left the atmosphere yesterday."

"It doesn't make much difference," the general said. "Once they get a couple of hundred miles off Earth everything seems to go to pot; radio, radar, everything. Maybe they'll have some answer to it."

The lieutenant at the radar said, "They're perfectly clear now, sir. Can't be more than a hundred miles up. They're braking, undoubtedly; soon they'll be able to use their retractable wings."

"Thanks, Lieutenant. I think I'll go out to the field."

The general came to his feet again and walked wearily to the door of the concrete blockhouse. This was the sixth failure in the past two years. Well, at least they were seemingly all right this time; maybe the *Neptune XIII* could be made ready for another try in the next few months. If another tragedy had occurred, such as the explosion of the *Neptune XI*, he doubted that further appropriations would have been forthcoming. People were getting jittery about these attempts to reach Earth's satellite.

He could see, now, the braking jets, high above the desert. Everything would seem to be in order; Captain Maddigan, Lieutenant Coty and Sergeant Evers would be telling him about it within half an hour.

The rocket craft was obviously undamaged. It came sweeping down toward the runway, firing minor rocket blasts intermittently. Its landing gear

descended, and suddenly it was on the ground and taxiing toward them, looking surprisingly like a conventional airplane rather than a craft meant for the exploration of space.

The general ran out with the others as the *Neptune XIII* came to a halt. He stood impatiently while waiting for the occupants to open the hatch.

Finally, it swung free and a head and shoulders emerged. The man's face was pale and there was deep strain to be observed in it.

"Well, Maddigan, what went wrong?" the General snapped, then with concern in his voice, "You're all okay, aren't you?"

Captain Bill Maddigan said, "Yes, sir, but..."

"Then come on down. Don't be ashamed of your failure," the general said gruffly; "we'll start all over again tomorrow. Sooner or later we'll lick this thing and..."

Maddigan shook his head. "Sir, we didn't fail, not exactly." While those below stared up at him, trying to assimilate that, he paused, then added. "Sir, we've made some discoveries so shaking that we demand a hearing before a representative group of American scientists."

GENERAL McCALL glowered at him. "Are you completely around the corner, Captain? Come down here at once! What do you mean—you demand?"

Captain Maddigan's face was pale but he tightened his jaws stubbornly. "No, sir. We're afraid we'll be confined to an insane asylum if we give our report to army authorities alone. We've decided to stay in the ship, seal ourselves in, until we're guaranteed a hearing before a competent group of physicists and astronomers."

A figure next to the general whispered. "Humor him, sir; obviously something's happened. They're proba-

bly all out of their minds and not responsible."

The general shot a glance at the medical corp major. He ran a hand quickly through his hair. "You're undoubtedly right, Major Corcoran; you speak to them." His voice rose, to the scores of base personnel who'd surrounded the spacecraft. "All you other men clear out of here. Back to your quarters!"

The crowd scattered regretfully, all ranks from private to colonel, and as they went they gazed back over their shoulders, scowlingly, apprehensively. There was something definitely wrong here and everybody on the field knew it.

The doctor called up, "You'll be all right, Captain. Come on down, the three of you, and we'll take care..."

Two other heads made themselves visible next to Maddigan's. Lieutenant Mike Coty said, "You don't understand, Major. We're not crazy and we're not sick. We've just run into something that scares us and we're afraid that if you army medicos get your hands on us we'll wind up in a nut factory. We want some capable scientists to hear our story."

"That goes for me to," Sergeant Joe Evers gulped.

"Now see here, boys," the major began.

But it didn't do any good. They bolted the hatch again, threatening to take off and land in some remote spot from which they could escape, if attempts were made to get them out. They wanted some prominent scientists and nothing short of that.

"It's a matter of humoring them," the major told McCall in a low voice. "Flagstaff Observatory is only a few hundred miles and Los Alamos considerably nearer. We can have some physicists and astronomers here within hours."

General McCall snapped in irrita-

tion. "I'm getting to the point where I'm ready to blast them out."

"They're sick men, General," the major said softly. "Besides, the eyes of the world have been directed to the flight and not even army censorship could keep this from the papers. I suggest you handle the situation with care. Shall I give orders to assemble the specialists these men demand? That will, at least, give us the opportunity to get them out of there and—uh—get our hands on them."

"Go ahead," the general sighed.

THE HALF dozen physicists and astronomers from Los Alamos and Flagstaff were seated in the officer's mess. Major Corcoran summed up the situation briefly.

"As you know, gentlemen, the army made its sixth attempt to reach the moon the day before yesterday. Three men, Captain Maddigan, Lieutenant Coty and Sergeant Evers made up the crew of the rocket craft. I won't go into the details of the *Neptune XIII*, but definite improvements had been made over the earlier ships and we had high hopes of the success of this try.

"It was expected that the trip would take approximately nine days in all; fours days to reach Luna, one to circle it, and four to return.

"Upon its leaving the atmosphere of earth, we lost radio contact with the *Neptune XIII* and, shortly afterwards, radar contact. Evidently, there are some factors at work with which we are as yet unfamiliar. However, we still had reason for elation; everything seemed to be going successfully."

The doctor paused momentarily before going on. "You can imagine our surprise, gentlemen, when the *Neptune XIII* returned yesterday after having been gone less than twenty-four hours. It landed successfully, and, from all indications, ship and crew

were quite in order."

Professor Bryant, the noted physicist, said impatiently, "My dear Major, I can't see what this all has to do with us. The experiment is all very interesting but—"

General McCall held up a hand. "Please, Professor, let the major proceed. We aren't any happier about this than you are."

The doctor went on. "As I say, the men seemed to be all right except for one thing—they refused to leave the ship until an audience of American scientists was present to hear their story."

Felix Baumer of Flagstaff shifted his position uncomfortably and knit his heavy eyebrows. "I seem to have missed something there. What story?"

"That's the mystery, gentlemen. Beyond claiming that they'd made some discoveries so shaking they were afraid they'd be placed in a mental institution, they refused to say anything; that is, until competent physicists and astronomers were assembled."

"Preposterous!" Professor Bryant snorted. "Obviously, these unfortunate men have snapped under the strain. I can see—"

"Professor, that is our own conclusion," General McCall said impatiently. "However, there is a good deal at stake. We seem to be on the verge of attaining to space travel, but the past five disastrous attempts have brought on considerable opposition. I am afraid a sixth—well, at any rate, we wish to give them every benefit of the doubt. Besides," he added with a grimace, "it was the only way we could get them out."

"Very well, General," one of the other physicists agreed, "where are they?"

McCall shot a glance at his wristwatch. "They should be here momentarily. Maddigan went to the li-

brary for some book or other which he wanted before speaking to you."

THE DOOR opened and a lieutenant-colonel entered followed by Captain Bill Maddigan, whose face was still pale and strained. Behind him, bearing a bulky tarpaulin-wrapped object, staggered Coty and Evers. The lieutenant-colonel stood aside and leaned against the door, while the three advanced until they faced the six experts, General McCall and Major Corcoran.

Bill Maddigan was obviously the spokesman; the other two stood behind him, near their burden and faced their audience half defiantly, half fearfully.

Major Corcoran made hasty introductions.

The captain of the *Neptune XIII* wet his lips carefully and said, "Gentlemen, I have no doubt that either General McCall or Major Corcoran has briefed you on the situation."

He attempted a wry grin, which looked nothing more than sickly. "I have no doubt, either, that they told you we were mentally upset and that this was an attempt to humor us and get us from our ship."

No one said anything. The major half lifted one hand as though in protest, but remained silent.

Maddigan went on, "Frankly, we're half inclined to agree with them. Hadn't it been for three or four books I'd read some years ago, undoubtedly our minds *would* have snapped."

He held up his right hand which held a heavy volume. "My being familiar with this work saved us."

The pilot turned and faced Felix Baumer. "I understand, sir, that you are a well known astronomer. Please tell me how far the moon is from the Earth."

Baumer's heavy eyebrows went up. "I should think you would be per-

fectly familiar with that, Captain. It is approximately 239,000 miles away."

"How do you know?"

"I beg your pardon?"

"How do you know?" Maddigan repeated.

Felix Baumer looked from one to the other of his fellow scientists, raised his eyebrows again and said, "We compute the distance of heavenly bodies by use of triangulation. The moon, we have found, is 239,000 miles off."

"And the sun?"

"Roughly 93,000,000 miles."

"And Mars?"

"The planet Mars may be as near as 35,000,000 miles during a perihelion opposition; or it may be as far away as 63,000,000 miles at an aphelion opposition. Of course, when it isn't in opposition it is considerably further away than that."

"And how were these figures arrived at?" Maddigan went on.

General McCall interrupted. "Look here, Captain, you put our infant Space Service in a bad light. You are perfectly familiar with these things. The courses you've taken in preparation..."

For the first time, Lieutenant Mike Coty spoke up. "Sir," he said to General McCall, "that's why we wanted a group of scientists present when we made our report. Most of the courses we took are way off the beam."

"Way off," Sergeant Evers muttered.

Captain Maddigan said, "Please let me continue, sir."

The general snorted in disgust, but remained silent.

MADDIGAN OPENED his book at a page in which he'd been holding a finger. Before he read he looked up at the six specialists and said, "We use triangulation to determine the dis-

tance of heavenly bodies, but the method isn't even efficient for measuring things at comparatively short distances." His eyes went down to his volume and he continued, "According to the measurements made by Cook, the height of the mountain Mauna Loa is 18,410 feet; according to Marchand, it is 16,611 feet; according to Wilkes, it is only 13,761—all used the triangulation method."

He went on further. "In the 22-150 issue of the *Alpine Journal* there is a list of eight different measurements of the height of Mt. St. Elias. They vary from 12,672 to 19,500 feet—all used the triangulation method."

"An article in the *Scientific American* issue of 119-31 points out that there is always an error of at least ten percent in calculating the height of a mountain. The writer contends that Mt. Everest is somewhere between 26,100 and 31,900 feet."

Two or three of the assembled specialists began to protest; Felix Baumer even came to his feet.

Maddigan held up a hand. "Gentlemen, if we cannot measure accurately mountains right here on Earth by triangulation; how in the name of reason can we attempt to measure distances running into the millions of miles?"

Professor Bryant snapped. "Get to your point, young man. It would be very easy at this point for us simply to say, 'Do you think you can do better?' but obviously you are building up to some point you wish to make."

Captain Maddigan turned to him. "Yes, sir," he said, "my point is that our attempt to reach the moon the day before yesterday wasn't a failure."

General McCall gaped at him, then sputtered, "You were back in less than twenty-four hours. Are you—"

Bill Maddigan said wearily, "Gentlemen, the moon is considerably less

in size than we have assumed and it is *less than four thousand miles away.*"

There was a long awkward silence. Maddigan took a step backward toward Coty and Evers as though seeking their support.

Finally, Major Corcoran said soothingly, "Then Captain, you claim that you actually circled the moon, in the short time you were gone, and returned?"

"Yes, sir. And while I'm at it, I might as well tell you that the sun isn't any ninety-three million miles away either. It's closer than that and not nearly so big as—"

Lieutenant Coty said tightly, "Give them the rest of it, Bill."

Professor Bryant snorted, "You mean there can be more?"

Bill Maddigan hurried on. "Yes, sir, there is more. All evidence in space indicates that we have been wrong in supposing that the earth circles the sun. Actually we're almost stationary. The sun, carrying Venus and Mercury with it, revolves at a distance of only a few tens of thousands of miles. The exterior planets which are, gentlemen, considerably smaller than we have thought, not only revolve about this central arrangement but approach and recede from us in loops."

THHEY SAT staring at him, some in sympathy, some in disgust. Two essayed chuckles.

"I might as well wind it up," Maddigan concluded. "The earth isn't round, either; it's more top-shaped than spherical."

Major Corcoran laughed sympathetically. "Well, Captain, I think we should be off now. You wanted your story to be heard by a group of scientists and we gathered them for you. Now it will probably be best if we go on over to the hospital and make ar-

rangements..."

"Wait a minute," Lieutenant Coty said. He turned to the six specialists, holding up one hand as though in supplication. "We knew we wouldn't have a chance with the army medicos, but we thought you'd be interested enough to at least check some of..."

Felix Baumer said, not without kindness in his tone, "I am sorry, Lieutenant. We all sympathize with you deeply. I am sure that a very short stay in proper institutions will have you on your feet again."

The others nodded.

The lieutenant-colonel who had conducted the three spacemen to the meeting, got up from his chair and stuck his head out the door and called. Half a dozen medical corp men began to enter.

Sergeant Evers said desperately. "How about our proof, Captain?"

Captain Maddigan held up his hand. "One more thing," he said. "We were afraid of this so we brought something in the way of evidence."

"Possibly a piece of green cheese from the moon?" someone said.

The six medics continued to advance.

"Show 'em 'boys,'" Maddigan told Coty and Evers.

The lieutenant and the sergeant tore the tarpaulin from the bulky object they'd brought with them:

General McCall said, bitterness in his voice, "What the hell is that supposed to be?"

They all stared at the slightly luminous sphere.

"Why, why," Felix Baumer said, "it looks like a model of Mars."

Maddigan said hurriedly—the medics were almost to him—"When we got to Luna so quickly and saw some of the ramifications of these discoveries we've made, we knew we'd have to go on, to secure evidence. This is it, gentlemen."

McCall said, "What in the hell are you talking about?"

The medics had him by the arms now. Maddigan blurted, "We went over and picked up Mars and brought it back!" They began dragging him and the struggling Coty and Evers from the room.

"It's true," Evers yelled desperately. "It's Mars. That's the planet Mars!"

"Read the book," Maddigan shrilled, "the evidence is in the book!"

After the door was closed behind them, General McCall slumped back into his chair dejectedly. "This is the end," he muttered. "After this, there won't be another appropriation for the

Space Service for years!"

Felix Baumer said idly, "You know, it's quite a coincidence. Something unexplained has happened to Mars. We haven't been able to pick it up at all in our telescopes at the observatory these past few nights." He yawned and shrugged. "Science is slow to arrive at conclusions; sometimes it takes generations to discover the why and wherefore of such things."

Professor Bryant went over and picked up the book from which Maddigan had been reading.

"The Books of Charles Fort," he snorted. "No wonder the poor fellows went mad, reading the works of that crackpot."

STEREO ROBOT

By A. MORRIS

HOT LABS" handle radioactives from a distance and from behind ten foot concrete walls reinforced with lead shields. Men can't get near the "hot" stuff. They've got to carry on their chemical and physical operations from a distance. There is simply no other way.

Delicate but powerful remote controlled metallic hands have been built for the manipulation of these materials. Observation of the operation is conducted by means of perisopic mirror arrangements. It works satisfactorily.

A recent outgrowth of the super-hot materials calls for men to work from behind even thicker shields and from even greater distances. Television turns out to be the only practical way to view the resulting work operations. But ordinary television is only two dimensional and did

you ever try to pour liquid from one glass into another with one eye shut? That's the mon-optic vision you get with television. You can't judge depth.

So, they've had to install two cameras and use stereoptic effects to get the third dimension. It works well too. The operator of the remote controlled tongs watches the twin television screen through a familiar pair of stereopticon glasses and consequently can judge depth as well as the next man operating normally.

Little tricks like this make the difference between the success and failure of an operation in modern science. Probably twenty years from the whole technique will commonplace and not even worth mentioning. That's the way of science—fast and furious!

BRAIN-BLOCK BUILDERS

By JON BARRY

THE SWITCHOVER to automaticity that is being made by American manufacturers is not exactly a slow-moving process. Everywhere machines and tools are used the elimination of the back-breaking and handiwork methods, is a major objective. Foreign missions to this country have marveled at the way we've made the construction of most things into a simple automatic sequence of operations

involving the minimum of human effort and the maximum of mechanical effort.

In a modern factory even the traditionally tedious practices of lifting and moving products is dispensed with by employing "materials handling" machines. The object of all this is to obtain terrific production with the minimum of human labor. Only in this way can our already high standards of living be raised still higher.

Production!—that is the key to American and world happiness!

To give some idea of what this portends for the future, the immediate future—not ten thousand years hence—let us consider a technique which is revolutionizing industry in such a calm and matter-of-fact way, that it is difficult to realize that the millennium is on us.

A glance through the technical magazines and trade journals shows advertisements by companies begging manufacturers to investigate a thousand and one new production-increasing gadgets. There is one ad however, by an organization called "Arms" which strikes you right between the eyes. The ad is phrased in technical language but is worth quoting in part: "...put control of the machine in a completely automatic curve-generating and action-triggering device actuated by a punched card..."

Ponder these words a moment. They imply the clue to a whole new method. In making machine parts a technique is used in which a master object is made,

put in a mechanism known as a profiling machine and from this master the duplicates roll off in quantity. This is now becoming a common constructing art. But the middleman, the tool-maker, the master-maker, and others are still intermediaries. The method is not as automatic as one would like.

With the "brain-block" method of instrumentation, the machine is made so automatic that only punched cards need be fed into the apparatus. These are directions, so to speak, for the "robotized" machine tool to follow! The result is that a manufacturer can keep his "engineering department" practically in a file cabinet.

What makes it more noteworthy is that this is not something intended for the future, but for right now! There will be plenty done with this technique in the next few years.

From where we sit, it looks as if it wouldn't be a bad idea to look around and see what people will be able to do with all of the leisure time that will be theirs when some of these ideas really get rolling!

THE GRIM NOTE

By A. T. KEDZIE

THE EARTH'S key mineral is without question, Uranium. Everywhere on this beaten old planet people are combing the jungles and deserts in hope of stumbling on that strong clicking of the Geiger counter which signals the presence of this precious commodity of peace—or war. The Western peoples of the world generally sit back relaxed, knowing that in the Belgian Congo and in Northern Canada are large deposits which supply our sinewes.

Until recently the presence of Uranium in the Soviet Union was regarded by Westerners as problematical. When the Russians announced their A-bomb, scientists and laymen presumed that the necessary material came from the slave-worked mines of Bohemia and Germany. It was also known that within the boundaries of the Soviet Union itself there were some minor deposits. But for the most part we've been congratulating ourselves on the fact that the western world had apparently cornered the market on Uranium by chance and by luck.

But an unexpected, grim and ominous note has crept into the picture. A writer and researcher doing work on Russian history of the modern period stumbled on a little document written by a Russian scientist in the 1936 edition of the Russian encyclopedia. The writer stated that Pierre Curie had obtained some Uranium from a Russian source which was described as huge, coming from enormous deposits in Central Asia near Afghanistan.

Also the encyclopedia referred to large deposits of the mineral found in northern Russia, in Turkestan and in Northern Mongolia.

The researcher didn't think a great deal about this at once. But when he referred to later editions of the encyclopedia he discovered that the material was deleted completely!

When the matter was turned over to security authorities and they coupled this knowledge with what they know of Soviet industrial establishments for mining, they came up with the startling conclusion that everything points to the Soviets as having enormous gigantic deposits of Uranium far exceeding our own!

In a word there is no shortage of Uranium in the Soviet Union. This unfortunate fact is not propaganda or guess. It has been corroborated in a way by the apparent confidence of the Russians to talk of stock-piles of the bombs, and so forth.

Allied scientists have wondered how the Russians obtained sufficient Uranium for their prodigious efforts and less efficient nuclear techniques, especially in light of the fact that it is known that the mines in occupied territories are rather nearly exhausted. Furthermore there is no leakage from the Congo or other Allied sources. The only answer ties in with this discovery: within Soviet borders is more than enough—unfortunately!





He screamed once in awful agony as the terrible talons cut into his flesh

The DEVIL IN A BOX

By Gerald Vance

**The saying is that nice things come
in small packages. But in this tiny box
was horror beyond the dreams of insanity!**

IT ALL happened to me just as I told them and I won't say it didn't and they can't make me say it didn't. It's the truth I'm telling you and I think you'll have more sense

than they had, though knowing me as they do, they might at least have given me the benefit of the doubt.

Why, my record speaks for itself. I have newspaper clippings lots of



them. Here's a feature article by the noted police reporter Courtney Smith, you must know him. He wrote me up a little while before this business.

You see here, it says, "There can be little question that Mike Mulroy is the smartest detective on the New York force. The way he dealt with the Druillo mob, his clearing up of the Dorsey and Company pay roll robbery, his tracing of the Farwell murder to a casual acquaintance picked up by Farwell on an ocean liner when Farwell's secretary had been all but convicted of the crime is certainly police work of the highest order, of which he and the city of New York can be justly proud."

You see that and now I'm out on my ear.

Have another drink. I hope you can help me. You being in the newspaper game and knowing a lot of people with influence, I believe you will be able to help me. I'll tell you all I know, every bit of it. But don't ask me to explain it.

When I think about it myself, it seems so impossible that I don't wonder O'Bryan said I needed a psychiatrist. Well, the psychiatrists looked me over and pronounced me sane. When they got the psychiatrists' report, they said I had probably been drunk and there had been an accident or suicide and that I had burned the house to destroy the evidence.

They know it's my rule never to take a drink when I'm on duty and as if I'd be fool enough to destroy the evidence that would confirm my story.

Well, as you say, I must begin at the beginning. I have Sidney Pell's story all down in writing, word for word as he told it to me. You see, I went to night school and took a course in shorthand a little while after I got on the force. It comes in mighty handy for taking down testimony. But now

to get down to business:

One morning, it was around two years and four months ago, I have the exact date if you need it but I've been off the force two months, nearly three, so that's about right, I came into headquarters as usual. O'Bryan, he's the assistant chief, says to me, "Mike, the old man wants to see you."

I went into the chief's office. Walsh, that's the chief, was behind his desk. He had a sort of a perplexed frown on his face.

He says to me, "Mulroy, I've got a job for you that will take some careful handling. I know you've got a cool head and that's why I'm putting you on it."

I thanked him, and he went on, "You probably wouldn't have heard of Hinkley and Pell a firm of Wall Street Brokers."

"No, I haven't," I says.

THE CHIEF continues, "One of the partners Arnold Hinkley died suddenly a little while ago. His widow got the idea that there was funny business and complained to us. I'll let you get the details from her. She'll talk plenty. I want you to interview her and Sidney Pell the living partner. He's a kind of an invalid and stays home most of the time. Both addresses are on Park Avenue, quite close together. Now remember, Mike, though I don't think you need to be cautioned, these people have to be handled in just the right way. They're rich, they're prominent, and they're touchy about their rights. It wouldn't do for some cop to go up and put the finger on one of them like some ordinary hood. With their influence, that cop wouldn't hold his job long. We can't be throwing accusations around and making quick arrests. Careful is the word and smooth and polite. That's why I'm putting you in charge. I wish you luck. Get busy

on it as soon as possible."

"Okay chief," I says and was on my way.

Mrs. Hinkley was a little breathless woman always dangerously near hysterics but if you didn't let her manner get you, what she said made sense.

The maid took me into a living room out of a movie where Mrs. Hinkley was waiting for me and left us alone. Mrs. Hinkley started to pour me a drink but I said, "No thank you, I never drink when I'm on duty ma'm."

She said, "Very well. Then, let's come immediately to the point. My husband has been murdered and his murderer is Sidney Pell."

"Just a minute lady," I says, "murder is a serious accusation. When we make it, we have to give proof."

She comes back at me, "I'm expecting you to find the proof. Isn't that what the police are for. That's why I called you in anyway."

"Yes, of course but suppose you tell me all about it and why you think Pell murdered your husband."

She said, "My husband and Sidney have been partners for years. It was through us that Sidney met his wife. It was Arnold who got him into the brokerage business. When I think that he could do a thing like that to his best friend."

Her voice kept going up and I was afraid she would lose control.

I cut in, "Easy now ma'm. You've got to keep yourself in hand and talk straight to the point if you want me to be able to help you."

"Yes, you're right, excuse me," she says and was calmer as she went on. "Sidney has been acting very strangely of late. I noticed it first and then, my husband commented on it. He has been surly and distant, has broken off conversations and fallen into long silences. He had declined a number of invitations from us though since we first

knew each other, we always spent two or three evenings a week together, he and his wife Maud and my husband and I. I asked Maud about it. We were afraid that either my husband or I had offended Sidney in some way. She insisted that nothing of the kind had happened, that Sidney was fond of both of us, that it was his illness and nervousness, he has a gastric ulcer. Nothing further was said about it. Then, the evening before the day of my husband's death, Sidney phoned us. He was his old jovial and friendly self. He invited my husband to have lunch with him the next day at the club. It hurts me when I remember how pleased poor Arnold was at the change in his attitude. They had lunch together the next day. Four hours after that, my husband was dead."

AT THIS point, she broke down and cried quite a bit. You know, nothing bothers a man more than to see a woman cry. He always wishes he was anywhere but at that place. I finally got her to pull herself together.

I asked her, "But what made you think your husband was murdered?"

"What could I think," she came back at me. "The strange way Sidney had acted, his sudden change to friendliness, and my husband's sudden death. I had a suspicion, at first vague, then growing. But what happened afterward was proof positive for me whatever view the law may take."

I encouraged her to go ahead. She did.

"Naturally, at first, I couldn't say what I was thinking. Sidney took full charge of all the arrangements. He simply took the details out of my hands before I had time to decide about them. Oh yes, I know you could say he was being helpful but he seemed just a little too eager. I was too weak-

ened by shock and too undecided to object to anything he did. I asked him why he was having my husband placed in a vault instead of buried. He told me that in a conversation they had had a long while ago, Arnold had expressed a special horror of being put under ground. It seemed strange to me that I had never heard Arnold say anything of the kind. Still, he might have hesitated to talk of such things to me. Anyway, I couldn't see what Sidney was to gain by it if he was guilty. What is more important, it did further a plan which was forming in my mind.

The day after the funeral, I spoke to Dr. Stern our physician. We have known him a long time and I could trust him to be discreet. As you would know, he said that a post mortem examination was the only way to prove or disprove my suspicions.

We visited the cemetery, went to the vault, and opened the coffin. Then came what to me is conclusive proof. The coffin was empty."

I'll admit that her last statement gave me a jolt.

"Empty," I repeated after her in a kind of goofy surprise.

"Yes," she said. "You can see now why I feel as positive as I do. I think Sidney poisoned my husband and then disposed of the body to remove any chance of its being found out."

I didn't say anything for a couple of minutes. Then, I asked her, "What motive would Pell have for killing your husband."

"I don't know that at all," she said.

"It probably has something to do with the business. That's the only thing I can think of." "Yes, we've got to go into that," I agree.

Then, I said to her, "Of course, Mrs. Hinkley, you must understand that we can't go too fast with this business. We haven't got enough for an indictment.

"I see how you feel and all that but what may be conclusive proof to you wouldn't stand in court. We have no proof that Pell took the body out of the coffin. Until we can find that proof."

"But who else would have done such a thing. Who else could have gained anything by it?" she insisted.

"That," I says, "is the question we've got to answer. It looks to me as if you've got something but try and tell it to a judge and jury. That's another matter. Anyway, I'm going to work on it and I'll keep you informed as to what we find out."

Well, I first went to see Dr. Stern. I got nothing new from him. He okayed what she had told me. Then, I judged it was time to tackle Mr. Sidney Pell.

A WHOLE upper floor of an apartment hotel was given over to the Pell establishment. It was ritzy with a capital R. A liveried butler announced me and steered me into a living room twice the size of the one at the Hinkley place with a fortune in furniture and nicknacks just lying about.

Now my trade has taken me into quite a few swell places. I was invited after they had enjoyed a visit from burglars or jewel thieves or the like. So I know a little of how those people do things. This exhibit was a little too loud and I decided that the Pells weren't one of the first families. I thought Pell must be a self-made man and wondered how he got to the suckers in the first place.

The man I was having these thoughts about sat at the far end of the living room on a divan. He didn't get up to greet me. He just laid back, his bath robe folded around him and looked like the living picture of indigestion. He looked as if he had just taken a nice big drink of vinegar but

If you offered him some fried chicken, he'd die. He was very nervous too. His face twitched, his hands moved all the time, and he had a way of starting at little noises.

A tall beautiful brunette hovered around him. I rightly judged her to be Mrs. Pell. The idea had occurred to me that maybe he had designs on the Hinkley woman and had bumped off her husband to clear the ground. This didn't seem likely to me now.

The Pells offered me a drink. I said, "No thank you, I never drink when I'm on duty."

"I don't drink either, on duty or any time," says Pell seeming to regret it. "I have a stomach ulcer that won't let me."

Mrs. Pell took one by her lonesome and I sat sizing him up as she was pouring it. I wanted him to feel a little nervous and uncertain about me before I started talking business but he beat me to it.

He said, "I know why you're here. I heard that Evelyn has complained to the police. It's one of the most distressing things that ever happened to me."

I didn't answer. I thought that since he'd started, I'd give him a little rope.

"We were always so fond of Evelyn," put in Mrs. Pell. Why we named our child after her. And Sidney and Arnold were such friends."

I still said nothing, just kept on looking dumb.

Pell took up the tune again. "Yes, Arnold Hinkley was my best friend. He has tended to the firm since I've been sick. I scarcely ever go down to the office. When I think of the work and responsibility he has saved me, I can't imagine how she could think that I would want him to die."

Then, I came at him suddenly. "Did you know about her visit to the cemetery the day after the funeral?"

"Why no," says Pell and I could see that that one puzzled him but made him nervous too.

"Do you know what she found there," I asked.

"No, I don't even get what you mean."

"She found her husband's coffin empty, the body of Arnold Hinkley gone."

Pell was astonished. If he had been sitting on a chair instead of a divan he might have fallen off of it but it didn't ring true.

In the police game, you come to see a lot of people's feelings. Most folks don't like a visit from the police in their stride as an every day occasion. Usually, something unusual or exciting is happening to them and their feelings come out as they don't in ordinary life. They're mad, they're grieving, they're frightened. So the police get pretty well able to tell whether such feelings are genuine or an act for the police audience.

Pell's astonishment seemed to me like acting.

When he had registered astonishment long enough to impress me Pell asked, "Why does she think I wanted to kill Arnold?"

"She isn't decided on that but she suggests it might have something to do with the business," I told him.

"I thought as much," said Pell.

"I shall insist on having our books examined and the business thoroughly investigated."

Then, I asked him, "What explanation have you for the empty coffin?"

"I have no explanation at all," he said.

"I can't even imagine how it was done. A city cemetery is watched. It's no easy matter to spirit a corpse out of it without being noticed."

"You see where that leads," I said. It must be some one who knew the

deceased and would make the cemetery people feel he had a right to be there."

PELL SIGHED. "Right," he said. "And I'm the logical person if any one is. All I can say is, I didn't do it." Just then, a beautiful little girl eight or nine years old bounded in and jumped up on Pell as if he was a bar in a gymnasium. Her mother said, "Evelyn," but I could see Pell liked it. The vinegar turned to sweet cider as he introduced me to her.

He said, "I am talking business with Mr. Mulroy here. You'd better run along back to Miss Brant for a little while."

By that time, the governess, a nice looking but starchy looking young girl, was in the doorway.

But little Evelyn had business with him and she knew how to transact it.

"Make Miss Brant let me go out and play in the snow," she said putting her arm around his neck.

I would have bet all my money on who'd win that game.

* * *

"I was afraid she'd catch a cold," the governess put in without much hope of success.

"That's right," Mrs. Pell said. "She's susceptible to colds. You remember, Evelyn, what the doctor said."

"Oh Lord," said Pell. And his voice went up in a way that didn't encourage contradiction, "When I was a kid, I was out in all kinds of weather and I was a whole lot healthier than I am now. What child wouldn't want to go out and play in the snow."

I knew Pell was master in his own house and envied him to that extent. Mrs. Pell said rather meekly,

"Oh well alright. I suppose it won't do any harm."

The governess just walked away

without a word to anyone.

Evelyn made a rush for the door while the going was good.

"Come back and see the old man after a while," her father called after her. He laid back on the sofa and the cider turned to vinegar once more.

"Have you any idea who might have been involved in this business," I asked bringing him back to what I was there to talk about.

"Haven't the slightest idea," he said as if he was tired of the subject.

He thought a minute and then said as if talking to himself, "Some one must be interested in collecting corpses."

Then he spoke more in my direction. "I can't think of any one who would want to kill poor Arnold. He didn't have an enemy as far as I knew. I think he died a natural death and the stealing of the body is something entirely different. That is probably the act of some crazy person. It may be one of the people working around the cemetery. Anyway, let me assure you that I'll cooperate with the police in any way that I can. I'm more eager than you are to get Arnold's body back in order to clear myself. In the meantime, I think you'll agree with me that it would be better for all of us to keep this business from being known. Publicity would injure me and spoil your chances of solving the case."

His last suggestion was reasonable enough. That was the trouble with Pell. That was the trouble with Pell all along. He was so darned reasonable and cooperative that he had you tied hand and foot when you started.

Well, there was nothing to be learned from him that day. So I shoved off. I thought as I left the place that I had often wished I had a few million dollars but from the looks of Pell, it wasn't always so hot.

I could enjoy a hamburger sandwich and Pell couldn't.

IN THE NEXT few days, we got an auditing firm to work on the Hinkley and Pell finances. Pell was down at the office helping them, calling their attention to any item they might overlook. Everything was strictly above board, not a hitch in the transactions of Pell and his former partner, nothing in any way crooked.

We also checked on the people that worked at the cemetery. None of them had the smallest notion of what happened. Nothing like it had ever happened there before. They had all worked there a long time and they all had good records that would seem to make it out of the question for any of them to be mixed up in it.

A couple of weeks after the case came up and when the reports were all in, I went into a huddle with Walsh the chief of the bureau and O'Bryan his assistant.

"Well, what do you make of it boys," was the chief's opening remark.

"It beats me," I said.

O'Bryan was up with an idea as he always is. "I don't think Pell robbed Hinkley. I think he was after Hinkley's wife."

"If you saw Pell, he wouldn't strike you as a lady's man," I said. "And his own wife has Mrs. Hinkley beat a mile for looks."

"Those arguments don't mean anything," said O'Bryan. "A gastric ulcer doesn't spoil a man for love and we have cases every day of men that fall for women in no way up to their wives."

Walsh chuckled. "You have an evil mind O'Bryan but you may be on the right track."

"Well, if that's the case," I said, "Pell got no good out of it. Mrs. Hinkley is after his blood."

"And the electric chair is no love seat," O'Bryan put in.

"O'Bryan, your jokes are too grim for my taste," the chief snaps at him.

Nothing the chief or any one else can say disturbs O'Bryan. "Aw Hell, maybe we're on the wrong track altogether," he says, "maybe on the day the two partners had lunch together, Mrs. Hinkley put poison in her old man's breakfast coffee and it took longer to affect him which made it look as if he was poisoned at lunch."

"Could be," said the chief. "But that doesn't make it any easier for us."

The idea surprised me and got me for a minute. O'Bryan is great for hunches and sometimes they hit the ball but just as often, they don't. Me, I never work on hunches. I just work on and get all the facts I can until something breaks.

I thought a minute and then said, "Nuts, if that had happened, why should she go to all the bother of raising the dust and calling us in. If there was no post mortem at the time, there would be about one chance in ten thousand that it ever would be found out. If in some way, it was found out later, she could play innocent or pin it on Pell if she wanted to."

"I think you're right," the chief said.

O'Bryan cut in, "As I think it over, here's what I believe now."

"What, another theory," Walsh said.

"Meet Mr. Sherlock Holmes."

"Go ahead and laugh," said O'Bryan, "but I think it's good. What really happened is that there was funny business between Hinkley and Mrs. Pell. Pell got wise to it and rubbed Hinkley out."

"And the empty coffin," I asked.

"Oh, that's easy. Pell bought some of the people that worked at the cem-

etary. He could make it worth their while, and plenty. They know how the stiff was moved out of there but they won't talk."

"Yes," said the chief, "that sounds to me like the best explanation yet. It gives us a motive that covers everything and a possible method but we're as far from the solution as ever."

"What do I do next," I asked.

"Just nothing," Walsh answered. "We have nothing to go on and besides, the case is too hot to handle. When there's money and influence against you enough to crush you like a fly if you make a wrong move, my motto is, go easy. Our only hope is that if Pell is a murderer, he may try it again and make a mistake. Then, we'll have him."

THAT WAS all, at that time. Let's see, it was in January that all this happened. The months passed. I went on about my work and almost forgot the Pell case. A year slipped by, fast enough as they do when you get to the age you and I are. The first thing I knew, January was around again.

Now, I don't often talk over my cases with my wife. I'm kind of old-fashioned and somehow, I don't like to go over the details of work like mine with a woman but I had told her about the Pell case. My wife is strong for the society angle and reads what all the papers have to say about the rich crowd and where they go and what they do when they get there.

So one evening during that January, she was taking a glance at the evening paper while something was on the stove and all of a sudden, she rushed into the front room where I was. "Look at this," and she showed me the paper. "Sudden death of Mrs. Pell, wealthy Park Avenue matron," etc.

"Why her picture was in this morning's paper. She was in their box at the opera last night."

I was on the move right away. I didn't wait for dinner. I got in connection with Walsh. He said we'd have a post mortem before the evening was over and if there was a sign of poison, we'd arrest Pell for murder. I found that the remains had been taken to a swanky undertaking parlor near to where the Pells had lived. We sent men out there to guard the place and spike any attempt to take away the body. I was detained at headquarters by some unexpected business that came up. The medical examiner went on ahead.

Then, just as I was about ready to follow, Larry Doyle called in. He was the plain clothes man we had sent out to take charge at the undertaking parlor.

"Hello, is this you Mulroy?"

"Yes Larry. Is Dock Ferguson there yet?"

"Dock is here alright but My God, the body is gone."

"Holy smoke. Hold everything. I'll be right out."

Walsh got as much of a jolt as I did. He went out with me. Our men had watched the place every minute. Pell had a perfect alibi. He had been with friends and with relatives of his wife and a doctor with some person we couldn't suspect, every minute since his wife's death.

Again, he pulled the astonishment act when he was told what had happened and again, I thought it was an act but what I thought didn't constitute evidence. This time, the chief questioned him. When he was warned that he didn't have to answer questions which could be used against him, he said he was willing to answer any questions whatsoever.

Walsh asked him, "Mr. Pell, have

you any explanation of the sudden deaths of your partner and your wife and the removal of their bodies in some mysterious way."

"Not really," said Pell. "In the other case, I thought Hinkley died a natural death and that the removal of the body was a coincidence. Of course, I don't think that now. I think that some one, somehow, murdered them and wants to involve me. I can't imagine who it is or why they're doing it."

Walsh said, "The objection is that it would have served their purpose better to put us on the trail but leave the bodies and let us find the poison."

"Yes, yes, that's true," said Pell. "I don't know how it is but somehow, I think it's directed against me."

"Now," said Walsh, "I'm going to ask you a question that will no doubt hurt your feelings. But I don't want you to fly off the handle because it's my duty to ask it. Have you ever suspected any affair between Hinkley and your wife?"

I expected Pell to go haywire on that one but he took it in his stride.

"Why no, there's nothing like that at all. Poor Arnold was one of the most married men I ever knew. His wife, though she suspects me of murdering him, would vouch for me there. He was never out of her sight except during business hours. I see what you're driving at. It's natural for you to think it too. It would stack up, either that I killed them out of jealousy or that Evelyn did or that we were in on it together. She thinks I killed her husband but she would vouch for me as far as any trouble over Maud my wife is concerned. If she had done it or we had managed it together, you people never would have been called in."

There was no argument against that and the chief dropped it.

THE UNDERTAKER had a lot of class. He looked like a Society parson but he was meek enough when we talked to him. He was scared out of a year's growth. He was in the clear though. Before our men got there, he had had strangers in the place, that is, strangers to the Pells, people we couldn't suspect who were ready to swear that no one could have gotten a body out of his place.

Pell seemed anxious to keep the whole thing out of the papers and we didn't care for publicity where we were so up a tree. There were reporters around and they got the story but Pell had such a big drag that none of the papers printed it.

"Well, what do you think, Chief," I said as I went into his office next day.

Walsh looked down in the mouth. He said, "What I think doesn't amount to a damn since I can't do anything about it. I think O'Bryan was right, that Hinkley and Mrs. Pell were playing around, that Pell knew it, that he got them both. What of it. All he has to do is to sit tight and deny knowing anything about it. We can't give him the works. He's a big shot. You saw how he handled the papers so that not a word of this appeared in any of them. I'd like to know, though, how he got that body out of the undertaking place. I'd bet my bottom dollar that the undertaker told the truth and other witnesses we asked were people that wouldn't have any reason to lie to us."

Well, that was that. We knew no more than we did in the beginning. I kept the case in mind more in the months that followed. I went to see Mrs. Hinkley from time to time. She had grown scrawny and bitter. She insisted that Pell had murdered her husband and his wife. I wouldn't have asked her if there was anything between those two but she brought the

subject up herself. Her story on that was the same as Pell's. She was convinced that nothing of the kind had happened and that Pell had never thought so.

Since she knew by this time that there had been nothing wrong with the finances, she came to the conclusion that Pell simply liked to murder people.

Mrs. Hinkley was in the habit of reading a lot of psychology and she brought up the question of the two deaths happening on exactly the same date, a year apart. Walsh had wondered about that too. She gave me a line about symbolism of the unconscious, deep stuff that I didn't understand. I didn't take it down because I thought even if it did furnish motive, it didn't prove anything.

Well, January rolled around again. I remembered the anniversary of the two deaths. Walsh and O'Bryan didn't speak of it. I don't know whether they thought of it or not. But it was my case and meant more to me. I felt uneasy all day nothing happened. I went home as usual and had a good dinner. I decided that the Pell case was washed up. My wife was just clearing off the table when the door-bell rang. It was Sidney Pell.

"Mulroy," he said, "I'm asking you a favor, to come with me in my car."

"Where to and why," I asked.

"You'll see," he said. "It's a little place I have out in the country."

"Please wait here just a minute," I said.

"No," he answered. "If you're thinking of having other police go with us or tail us it's off. I'm asking you to take a chance and you'll get some information. If you don't want to, I can just go back home and you can't arrest me for that."

I hesitated a moment.

"You can take a gun," he said. Old

Pell, being cooperative as usual. "But you won't need it. I'm not doing any murders this evening. This time, I'll be the victim. They don't want you but they'll come for me and nothing can stop them."

"Who will come for you and what are you talking about," I asked.

"You'll find all that out if you come with me," he said. "A man doesn't like to die alone and I thought of you because you know more than any one except me about the case. I assure you that you're safe. Are you brave enough to take a chance?"

Well, when he asked me if I was brave enough, that got my dander up. Besides, my curiosity was boiling over. Pell knew all that. He was a psychologist, allright. So I went with him. I took along an automatic and an extra supply of cartridges just in case.

Pell had brought a small car and was driving himself. I knew he owned a limousine as big as a city lot and kept a chauffeur. He had had Walsh and me driven home in it. But this time, he was at the wheel.

WE SOON LEFT the city and were out in Jersey. Then, I lost track of where we were. After driving an hour or so, Pell stopped the car. We left the road and walked about a block through fields. Pell went in front with a flashlight. I kept him covered, my hand on my automatic every second.

He stopped and when I came up with him, I saw we were in front of a delapidated little shack. Pell had a key and opened up. He got a fire going in an oil stove and then produced a bottle of whisky.

He offered me a drink but I said, "No thanks, I never drink when I'm on duty."

Pell fixed me some coffee.

"I thought you didn't drink either on account of your stomach ulcer," I

said quite seriously.

"That doesn't make any difference now," he answered.

He served my coffee, sat down at the other side of the table, and poured himself a large drink of whisky.

I waited for him to start the conversation.

He said, "You and your chief hit on the truth alright, though you couldn't prove it. I murdered Hinkley and my wife."

"Will you sign a confession?" I asked, ready for business.

"I'll give you a confession," he said. "but a legal document won't do you any good. I'll be dead before the night is finished."

I took down his story, allright, in shorthand but forgot to get his signature on account of what happened later. I wish I had it. That might have made them believe me and saved my job.

"I notice you're not drinking your coffee," Pell said after a moment. "No doubt you're afraid there's poison in it. I have no reason to kill you. Later, you'll see why."

He took a swig of the coffee to show that it was allright and as I liked coffee I was willing to trust him.

"Why are you so sure you're going to be dead before the night is over?" I asked.

"We'll get to that," he said. "But I want to begin at the beginning."

"All right, shoot," I said. So here is Sidney Pell's story as he told it to me and I took it down in shorthand:

I was born and brought up in a little town in Texas which nobody here ever heard of. I don't remember being especially good or bad as a child. Certainly, my family was good enough. They were all honest, law-abiding people. None of them committed any crime, so far as I know.

In school and high school, I did

well enough. I had hobbies like most boys, photography, bicycle riding. When I was about fourteen, I went in for stage magic and sleight-of-hand in a big way. I got some books on the subject and practiced and became quite good at it.

I was good enough to be a professional in a small way and later, I worked with a medicine show for a while. It helped to cash in later as you shall see. Please note also Mr. Mulroy that I had you at my mercy. I could have quickly slipped poison into that coffee you're drinking even after I tasted it but as I told you, you are as safe with me as you ever were in your life.

Another thing happened to me during my high school period, not a very unusual circumstance. I got bored stiff with the small town I lived in and everything about it. I liked to read books of travel but even more to read and think about the life of big cities. I wanted to be somebody big, to be rich and powerful and have people talking about Sidney Pell. "Oh, yes, there goes Sidney Pell, the big industrialist, or big politican."

I USED TO dream by the hour about that sort of grandeur. It wasn't adventure that lured me as much as the idea of big success. I think the adventure would have been healthier. Anyway, the road looked like a hard one when I thought about it in terms of reality. I had no particular urge toward business. None of the professions appealed to me. Even if I had had talents in some of those directions it looked like a pretty tough climb.

There was no money or influence among my folk. They were all simple, hard-working people without much thought beyond their daily routine. If I stayed around after graduation, it

looked as if my destiny was just to go to work with my father at the railroad station or get a job in one of the stores.

My father who sympathized with my ambitions, though he didn't quite understand them, persuaded me to hold in my wander-lust until I finished high school.

I didn't wait a week after graduation to get started. My journey toward the end of the rainbow started with a day-coach ticket to Dallas. That seemed a long way from his finance but the day-coach was luxury compared to some of my modes of travel later.

Well, I bummed around the country for a number of years. I hit all the big towns. I had more jobs than I can remember. The big money seemed as far away as ever but I never quite gave up hope.

I was a waiter and taxi driver a good part of the time. I used to see fellows my own age go into night clubs and spend as much in an evening as I would make in a month. I envied them their beautiful clothes and expensive cars and beautiful women.

I suppose you'll wonder whether I took to crime or why I didn't. Well, I didn't just then. Oh, I thought of it sometimes and I think I had a talent for it.

I frisked a rich drunk once in the cab I was driving. I got nine hundred dollars off of him.

When I got him home and he discovered that he had lost his money. I insisted that he must have been robbed in the restaurant where I had called for him. His brother came out. I suggested calling the police. I asked them to search me and my cab. The brother said he would vouch for my honesty any time. They let me go.

I had cached the money in some

weeds on the way to our destination and I just went back and collected it.

Another time, I got in with a man who was a big shot in the underworld and he was going to take me in but the police cracked down on the mob and they were all behind the bars before I had the chance to join them.

Well, after floating all over the United States for ten or twelve years, I found myself on a steamer bound out of New York for a cruise in the West Indies. I had a job waiting on tables.

Following the schedule of our tour, one day, we docked at Porte Au Prince the capital of the Island republic of Haiti. I wish now I had never seen it but it is a beautiful place and I was glad I had the afternoon off to go ashore.

Of course, I couldn't mingle with the passengers and go on the jaunt planned for them but I thought I could have as good a time in my own way. I wandered around looking at the quaint old houses and the market place with its tropic fruit and sea food and the gay friendly people. I had read about the Negro republic and I wanted to get as much of it as I could, as my means would allow.

Finally, I saw a white man leaning against a wall and letting the rest of the world go by as he looked at it in a lazy way. As I passed, he spoke to me and as I had guessed, he was an American.

"Are you a sailor?" I asked him. He didn't look like one but it was a good opening.

He said, "Hell, no, I live here. I guess I'm what you'd call a beach-comber. My name's Simpson, Jerry Simpson. Everyone knows me around here."

I told him I was on shore to see the sights and would like to see as much as I could.

"Would you like to go to a party?" he asked. "A real Native shindig. There's one going on out a little way beyond the edge of town. I'm going there and they'd love to have you."

I THANKED him and told him I'd like nothing better. We walked for quite a time and finally left the town and got out into the country. We came to a thatched house with a big open space in front of it and a lot of black people milling around, all of whom Simpson seemed to know.

It was a real party, not a religious festival as many of them are, just a friendly get together, some one's birthday or something. They had fish and fruits of many kinds and roast pig and a kind of native rum drink they called claron.

I hit the claron hard and it hit me.

I woke up in a grove of palms with the morning sun shining down on me. That is, it shone around me for I was in the shade and well cared for. Someone was even keeping the flies off of me. When I saw that someone, you may believe it or not, I forgot my hang-over.

She was a little tropical beauty. I don't know whether you enjoy a rich brownish tint or not. I go for it myself. But man, what curves. What a figure. Even in later years, I never grew tired of it. Broken and sick as I am now and near, very near the end, I feel delicious warm pulsations when I remember that morning.

Neither of us knew a word of the other's language but somehow that didn't worry us. It was only after things happened in the universal language that we began to wonder how we would talk to each other.

Then, we looked up Simpson who wasn't far away and he acted as interpreter and adviser.

My ship was gone but that didn't

matter. Here I was with a new home and a partner and a girl friend. At the moment, life seemed rosy.

I simply settled down with Yvette which was my girl's name as if it were the most natural thing in the world. Simpson's girl friend was her elder sister and he showed me the ropes, helped me with the language and the ways of the people among whom I lived.

I had a pleasant life, light farm work, fishing, plenty of parties and people. The Americans on the island wouldn't speak to me and there was plenty of them there as our marines were occupying the place at the time. Neither would the upper class Haitians.

The upper class Haitians speak French as it is spoken in France. They look to France for their culture and customs. They are quite conservative and religious. They have beautiful old world manners. Most of them don't believe in Voodoo or don't admit it.

The poorer peoples live very simply on the land. They speak a creole dialect French with changed construction and some African words.

Yvette's family kept an humfort or Voodoo shrine at their place and I began to have contact with that angle the day after I arrived.

Now Voodoo isn't an evil religion. I've read a lot of nonsense from misinformed sources about its devil worship. In reality, it is simply the religion the Haitians brought with them from Africa. It can be used for evil purposes and its practices can be perverted just as witchcraft and devil worship have existed in connection with Christianity, for instance, in our own New England and in many parts of the United States today.

Most of the West Indians who practice Voodoo are Christians at the same

time. They go to church on Sunday and maybe, the night before, they have been to a Voodoo ceremony. They don't see anything wrong with that any more than many of our people think it wrong to attend Spiritualist seances, though it means more to them, as a rule.

Yvette's uncle was an hougan a Voodoo priest and he and I used to have good talks. If I had stuck to his precepts, I wouldn't have landed in trouble.

They pray to Gods or spirits they call Loa. There are two kinds of Loa, the Rada Gods who are good and the Petro Gods who are evil.

Dambala the Serpent God is the chief of the good Loa. There is the Goddess Aida Uedo, the Goddess Grande Erzulie, and many others.

The chief of the Petro Gods, the evil Loa, is Baron Samedie.

THE PEOPLE pray to the Rada Gods out of reverence and for blessing and good fortune. They pay respect to the Petro Gods, to propitiate them, to keep them from doing harm, or when they want something they are not supposed to have. I'm telling you these things so you'll understand what follows.

In the average Voodoo ceremony, they have drums. You can tell from the opening roll of the drums whether it is to be a Rada or Petro ceremony. Then they dance and have quite a good time at it. Then, some person, most likely a Voodoo priest, but it can be any of the dancers or even a bystander, becomes possessed by one of the Loa. When that begins to happen, the drummers give a special roll of the drums that is reserved for that God. Then the person in the trance begins to talk and act as the God is supposed to talk and act and he is apt to give some advice or command or predic-

tion. They say that the person in the trance is being mounted or ridden by the God. When it is over, the festivities go on as before.

There is a lot of magic in connection with Voodoo, strange spells and phenomena and predictions. When I first heard of it, I thought it was all fraud and bunk. Simpson told me to wait and see. I soon changed my mind and if I had time, I would tell you more of the strange things I have seen, living right in the shadow of a Voodoo shrine.

Yvette's family were good people, harmless and friendly. They prayed to the Rada Gods and were good to their neighbors. They never prayed to the Petro Gods any more than was necessary.

One morning, about a year after I came to the island Yvette and I were going some place with Simpson and Suzanne who was Yvette's sister. We passed a field where three men were working. I spoke to them and said "good morning." They didn't answer but kept on working as if they didn't know I was there.

When I looked at them, it gave me a creepy feeling. Their faces were like chalk and vacant of any expression.

"You're wasting your time, talking to those birds," Simpson said.

"Why?"

"Because they're dead."

"What do you mean, dead." I said, amazed at his remark.

"I mean they're zombies," Simpson explained.

"The bocor, that's Voodoo priest of evil, gets hold of some one who has died and brings him to life or partly to life, pours some kind of life in him. The poor wretch has no memory of who he was, can't speak, has no will. But he can work and the bocor puts him to work or more often sells him or rents him to some one. The zombie will never make any complaint."

"Usually, the unfortunate people have died because they were poisoned," said Yvette. "The bocors have people in their pay to bring them in zombies."

"Please stop," said Suzanne. "I can't bear to talk about it."

Yvette gave that lovely full-throated laugh I remember so well and said, "Oh, my dear, we're not in any danger. Uncle Philipe is able to protect us."

"But all this doesn't seem possible," I said.

"No, it sure doesn't," Simpson agreed. "But it happens and the longer you're on this island, the more things you'll see happen that can't happen."

"But isn't there any way of putting a stop to the traffic in zombies," I asked.

"I don't know," said Simpson. "No successful way has been thought of, so far."

Suzanne was beginning to cry. So we dropped the subject. Later, Simpson told me all he knew about the zombies which wasn't so much.

Since then, I've read all the scientific dope on it.

The scientists have it that the victim is given kingoli, an African drug, which paralyzes the speech centers of the brain. There's more to it than that though, as I'll prove to you before long.

I had been on the island eight or nine years when the events happened which all I have told you leads up to.

In Haiti, as in many Latin countries, one of the favorite sports is cock-fighting. They train the game birds and match them and bet on them up to the hilt. Simpson and I liked to go to cock-fights and we bet what little we could afford.

At this time, a man we knew had a bird which he convinced us was a sure winner. He had been the victor in several battles and there was to be a match quite a way up country. The

man invited Simpson and me to go with him and we not only went but the owner's enthusiasm caught us so that we decided to plunge.

WE BET ALL

We had on that bird. He was killed a few minutes after the fight started and Simpson and I were cleaned. The owner who had taken us there in his cart was nowhere to be found. He just evaporated. He was doubtless hiding somewhere waiting for us to get tired looking for him and start home.

We didn't know any of the people there and weren't especially anxious for their company. We started home on foot.

It got late and we were tired and hungry. Presently, we heard drums not far off and knew there was a Vudu festival of some kind in progress.

"Let's turn in there," said Simpson. "There will be eats there and they won't mind our staying for the night."

"It's Petro," I said a little doubtfully. I could distinguish the different drum rolls by that time as well as any native.

"Aw what the Hell's the difference," he insisted.

"Any port in a storm."

We followed the sound of the drums and soon came to the place of its origin. It was a Petro ceremony, allright. They were torturing a dog to death. The pounding of the drums mingled with the screams of the poor animal which were horrible to hear. My flesh began to crawl.

"For God's sake, let's get out of here," I said.

"You're crazy," said Simpson. "We haven't a soul. We're hungry and there's no place for us to sleep except out among the mosquitoes. This part will be over in a little while."

I gave in. The dog was out of its misery in a while. Every one fell to

dancing and eating and drinking. No one said much to us until one young man started to pick a quarrel with us.

As physical specimens go, he was an ad for a physical culture course. He had a waist like a dancer and massive shoulders and muscles which rippled on as he moved. He could have taken Simpson and me with one hand.

It wasn't a fist fight he was thinking of, though. He was flourishing a big machette around and dangerously close to us. A machette is a knife or sword sort of instrument they use in the tropics for cutting brush and anything that needs cutting, around the place. This young fellow, drunk and spoiling for excitement appeared to think that Simpson and I were in line to be sliced.

Just as it seemed that there was nothing to do but to run from it, some one interfered. The man who interfered was almost the complete opposite of our young giant.

He was a shriveled little old black man, almost a dwarf. Only stray wisps of hair clung to his large head. His face was crafty and evil.

"Sit down," he said. "How dare you start brawls with strangers at my place."

The ebony statue sagged like an empty sack. I could see the big shoulders droop and an expression of sheer terror in that bold face.

The little old demon gave him several slaps in the face and squeeked. "I'll teach you. These white gentlemen are our guests. They are my guests. Now go and sit down, pig."

The fight was all out of the young athlete. He stammered apologies and went to a corner where he huddled in humiliation.

The little old man said to us, "I hope you will excuse what has happened. I beg of you, gentlemen, to consider yourselves my guests. Please make yourselves at home. Eat, drink, dance,

make love. Enjoy the fine evening." He left us as we thanked him.

I said, "Well, he looks like the boogy man but he's decent to us."

"I've seen him before," Simpson whispered close to my ear. "I don't know his name or I've forgotten it. He's a powerful bocor. I wonder what he wants from us."

PRESENTLY, Simpson and I got separated in the crowd and I looked around without being able to find him. Just as I was about to search for him further, someone behind me touched my arm.

It was the young giant who had wanted to pick a quarrel with us. He was all meekness and politeness now.

"Monsieur, will you please come with me. Papa Daniel wants to see you."

I judged rightly that Papa Daniel was the old bocor who had gotten us out of a mess which might have caused serious trouble. I saw no reason why I shouldn't oblige and see what he wanted. So I followed the big fellow. He took me to a little structure about a hundred yards from the house which seemed to serve as a kind of study or den or laboratory.

It was a cluttered place with Voodoo symbols, serpents and eggs and crosses and amulets. There were also necklaces and bracelets of some kind of bone and there were gourds and bottles and various containers.

The little old man sat behind an improvised desk. He motioned me to a chair across from him, and the young servant or disciple or whatever he was disappeared without a word.

"Let me have the pleasure of offering you a drink Mr. Pell," he said. "I have some brandy here which is much nicer than the claron they are drinking out there."

He reached for a bottle and some glasses and served me some cognac as

good as any I ever tasted. He then handed me a choice Havana cigar.

"There must be money in this bocor business," I thought.

"How did you know my name?" I asked him.

"I have ways of knowing about people," he said pleasantly. "I knew this morning that you were coming here, you and Mr. Simpson. I know you lost money at the cock-fight which is why the other man left you and you didn't stay with the people there. It is my good fortune for otherwise I might not have had the honor of your company."

What was he driving at. What did he want.

Suddenly, he leaned forward. "Mr. Pell, how would you like to be rich. I could make you rich, one of the richest and most powerful men in Haiti. Or you wouldn't need to stay in Haiti. You could go back to your own country. You could go back to the town where you were born and the people there, your family and all would say see how our young man has succeeded. You could then live in places like New York and Paris. You would wear beautiful clothes and have a big beautiful car and beautiful ladies. People would say to each other when they saw you, "There is Mr. Pell. Oh yes, he has a lot of money. He has a lot of power and is a friend of the most illustrious people.

How could that old devil read my mind.

He knew the very substance of the day-dreams I had gone over and over during my high-school days in the little town in Texas and later, when I was bumming around the country, having to scabble and connive and worry for a bite to eat and a roof over my head.

I had forgotten those dreams and ambitions in the easy happy life of the Island with Yvette and her people. Often enough though, I had been bored

and imagined I might return to the U. S. A. some day. But now all the old dreams and wishes came back on me with a greater force and keener longing than I had ever known.

Papa Daniel sipped his brandy and looked at me with as much fatherly interest as his ugly evil little face could muster, and let the temptation soak in.

Then, he went to work again. "And you won't have to work hard to get all this wealth and happiness. Most men work hard for such things but you won't. No work at all. You will do me a little service, just a little service for Papa Daniel."

He was completely slimy and I disliked his hedging. I came right to the point.

"I suppose you want me to bring you zombies," I said.

By this time, I knew the Haitian idea of zombies and the methods the bocors employed to get them.

"Yes, that's it," he said.

I remembered the unfortunates I had seen in the field that morning when I was first landed on the island and others later on subsequent occasions. Some one has to be killed and then brought to life as a soulless automaton to perform drudgery for a master. The scientists who have written of it, if they give it any credence at all, say it is a real death but I wouldn't bank on that and it is as bad one way as the other.

I THINK Papa Daniel read my mind as it went along.

He said, "I know you think it is a terrible thing to do to people. But it is not so bad. You give them a little medicine which they don't know they're taking. Their souls go to Heaven, their bodies to me. For that little service you are rich, happy. You have everything you ever wanted."

I still hesitated. Some one would take advantage of his offer if I didn't.

It couldn't be stopped by my remaining noble and poor.

"Another thing," said the oily, cackly, persuasive voice across the table. "Your friend Mr. Simpson has already accepted my offer. I wouldn't be surprised if he is counting on you as his first victim. I would rather have you than him to serve me. You are cleverer than he is. But I will leave that for you gentlemen to arrange between yourselves.

"Simpson accepted. Why the dirty louse," I exclaimed.

The old bocor gave an evil little chuckle.

I thought the best thing I could do was to temporize. It was necessary anyway to keep on the good side of the bocor. He could have me murdered right there and no one would be the wiser. All he had to do was to call in that young Hercules who seemed completely under his command and I had no doubt that that boy would take my head off with relish.

I said, "Well, what you ask me to do is a great decision Mr. Daniel. I would like some time to think it over."

He smiled in a way that would make you shudder and said, "Certainly, take time but I advise you to be careful and not take too much time."

I left him then and went out again to the party. In a minute or so, I spotted Simpson.

"Where have you been Sid. I've been looking all over for you," he said cheerily.

I pointed to a good looking girl in the crowd and said in a low voice,

"I had that one out in the bush. No one up country here knows our people. Yvette will never hear of it."

"You don't waste any time, do you?" Simpson said laughing. "Come on over and have a drink," and he led the way toward one of the tables.

"You pour it for me," I said. "I

want to go over and speak to that girl a moment."

You see, I wanted to throw Simpson off his guard.

For that matter, the bocor might be lying. But I wasn't taking any chances. I remembered the old sleight-of-hand, the stage magic of my high-school and medicine show days. I attracted Simpson's attention to something else and shifted drinks on him.

Four hours later, Simpson was dead.

The suddenness of the occurrence was something of a shock to me. I got good and drunk to forget everything that had happened. The next morning when I was straightened out and had had a good breakfast, Papa Daniel sent for me.

"You have done very well," he said. "Now I will show you what you need to do further. Here is the little medicine, the kind I gave Simpson. You know it works and I can see that you will be very skillful in using it."

He gave me some colorless powder.

"This will last you a lifetime," he said. "It is extremely powerful and the tiniest grain in food or drink does what we want."

I said nothing. I felt that I was being pushed along by circumstances that were getting beyond my control.

Ignoring my silence, the old bocor continued, "And now, you shall see that Papa Daniel keeps his part of the bargain."

He produced a little round box and laid it on the table between us. Then, he burned some incense and said a prayer, an invocation to Baron Samedi and the other Petro Gods.

Then, he raised the lid of the little box. Inside was a tiny reptile-like creature covered with scales. It had little beady eyes, darting and alert and expressing as much evil as any human eyes could hold. I couldn't look into those pin-points of eyes with-

out disgust and fear and a sinking feeling as if everything decent or worth while was going away from me.

THE FACE too had a human quality. It looked shriveled and old. I noticed with surprise that that ugly shriveled wee face had a marked resemblance to Papa Daniel.

"You see," said Papa Daniel, "here is your adviser and friend. This little one will tell you everything you must do to get the money and power and happiness you want."

He nudged the little monster with his finger.

"How," I asked, almost gasping.

"Oh, our little beast can speak," he said with that bogus cheerfulness I hated in him.

"Here, speak to your new friend, little one."

From the box came a little squeaky voice, in creole French of the island "Sidney Pell, I will be with you, always."

The bocor gave an affectionate laugh that was disgusting to hear and said. "Speak English little one. M. Pell understands that language best."

The tiny voice came from the box again, this time in clear English without any foreign accent, "I will tell you everything you need to know, Sidney Pell. If you do what I tell you, you will be rich, rich, rich."

The voice gave me a feeling of immense relief. It was tiny and squeaky but the tones were unmistakably those of Papa Daniel.

In my high-school days, when I went in for stage magic, I had done a little with ventriloquy which is another angle of the same thing. Often, the performer gives his puppet a squeaky little voice, for instance, Charlie McCarthy at the present time.

It appeared to me that Papa Daniel wasn't even a very good ventriloquist or he could disguise the voice better.

Yes, he was probably just an old humbug, an ordinary poisoner and murderer who used fake magic to terrorize these superstitious people into serving him.

His beast in a box was probably an island lizard of a kind I hadn't seen.

But then, it spoke, had spoken in English. Would Papa Daniel be likely to speak English without an accent. Why not. Humbug or not, he was an unusual man.

But the face with the human quality of features, the resemblance to Papa Daniel. Oh Hell, in my scared condition, my imagination could easily supply that detail.

If this new conjecture was true, the bargain wouldn't have to amount to much after all.

Papa Daniel was speaking. "The beast will help you as it promised and as I promised. But M. Pell, remember, if you fail to perform the little service I demand in return for your good fortune, the beast will come out of the box. It will grow. It will grow bigger than an elephant. It will tear you to pieces. It will pull your flesh from your bones. The choice is yours, to continue successfully and be rich and powerful, or to die a terrible death."

I wasn't frightened. I thought I saw through his shoddy performance and his designs or most of them.

I agreed without argument, confident that my position was now the stronger of the two.

"And what must I do to carry out my side of the bargain," I asked.

"Once a year, you must send me some one," he answered.

"Another zombie," I asked.

"Another zombie," he replied.

"A year from yesterday, your work will begin. The death of Simpson satisfied our terms for this year. And another little matter, it must be some-

one you like very much, some one close to you, a dear friend, a relative. No stranger or mere casual acquaintance will suffice."

I didn't like that condition at all but it would be foolish to argue with the old fraud. I was in danger as long as I was in that place. With a move of his finger, he could have his people slice me into any size pieces he found convenient. Once away, I could do as I pleased.

"What do I feed our little friend?" I asked as a final question.

To my surprise, Papa Daniel answered,

"It doesn't eat. It requires no care. The only thing it will ever eat will be you if you fail in your part of the bargain. Oh, one more caution. Never show it or the powder to any living person. Never tell any one about your connection with me or the agreement is broken."

I took the lethal powder and the beast in the box and left for home very glad to be rid of Papa Daniel's company.

I felt good. I even made jokes to myself about my new pet lizard and wondered what naturalists would think of it but I didn't show it to anybody. I had little difficulty in explaining Simpson's death. I just said that he had been suddenly taken ill. It was a tropical disease or perhaps even a snake bite. There seemed nothing unusual in such an event.

THET DAY after I arrived home, I went to a lonely spot, a clearing in the jungle where I knew no one would be likely to disturb me and opened my little box. I looked into the eyes of the miniature devil and looked away again. That same feeling of being lost to warmth and humanity gripped me.

I shook it off and put the question.

What was I to do to get the promised fortune.

The beast began to speak. It told me that as a start, I should go to Piere Duval, a farmer near where I lived, whom I knew very well. He raised game cocks. He would have one, an insignificant looking bird on which he himself placed very little value. The bird was described clearly and in minute detail. I was to buy it. I was to feed it and train it and build it up for a few weeks. It would rapidly become a champion and I would win much money.

"Do that," squeeked the little voice, "And then, I will tell you more."

It was a blazing tropical afternoon, siesta time, the heat of the day but I broke out in cold sweat.

I had been mistaken. This was not ventriloquy. Papa Daniel might be a murderer, a trafficker in zombies, a past master in every kind of evil, but his magic was not a fraud.

"What are you," I asked a little hysterically, "are you man, beast, or devil?"

The squeeky answer came from the box, "I am a part of the life of my master."

"You mean Papa Daniel."

"Yes, Papa Daniel."

I put more questions about Papa Daniel and his relations to the beast and the methods he employed but it gave me no answer. Either it didn't know or refused to reveal what it knew. I found then and afterward that the beast would speak only of what pertained to my immediate problems and success.

I wasted no time but went that evening to see Piere Duval. He had the bird which was just as it had been described to me, to the last detail. I got it for a trifling sum. I could see Duval's opinion of me as an authority on game cocks dropping to zero as I

bought it from him.

I built the bird up for a few weeks and then matched it. Bets were so easy to get that people pressed them on me. No one believed that my poor specimen of a bird could stand three minutes in the ring. He stood and nothing could beat him. He slaughtered rivals right and left and I raked in the money. I matched him all over the country and even took him into San Domingo.

Finally, when it was known far and wide that I had the best fighting cock on the island I could get no more odds on him. Other men were afraid to match their birds against him, I planned to take him to other West Indian islands but my little mentor in the box advised against it.

I next bought several fishing boats. The business prospered phenomenally and before long, I had a considerable fleet.

I made a land deal in which I got a tract for a rich American who wanted to start a sugar plantation. I made other land deals. I sold consignments of sugar and coffee, always getting fat commissions for my services.

AT FIRST, I was pleased with my new luck. I wasn't sorry I had killed Simpson. I had liked him up to that time but after all, he died from the poison with which he intended to kill me.

The relentless passage of time, however, caught up with me. Before I could realize it, the day was at hand when another victim would be required.

A boy named Raoul had come to work for me when I started my fishing boats. He was seventeen years old, very intelligent, bright and friendly in his manner, and willing to do any work which was asked him.

He had attached himself to me believing that I knew so much more and had seen so much more of the world

than his people, that learning from me would insure his future success. He had become a personal servant rather than a member of the fishing crew. He got so that he could anticipate my wants and nothing was too much trouble for him.

He trusted me and believed in me completely and I was quite fond of him. But another victim had to be produced. Accordingly, I disposed of Raoul and was free for another year to go on my successful way. I didn't rest well any more at night.

The year after that, I chose as my victim Yvette's sister Susanne. I was almost as fond of her as of Yvette.

Susanne had been Simpson's girl and after his death, I promised to look out for her. I did until I thought it was necessary to my purposes, I sent her to join her husband.

Yvette was no longer her old self after that. Her gaiety and sparkle were gone. I was sure she suspected the truth although she never uttered a word in that direction. She just became listless and sad and silent. I showered her with dresses and rings and bracelets and necklaces, things she would formerly have received with delight but she wasn't interested in them.

Yvette wasn't the only one who suspected me. I knew that from worried or hostile glances that came my way, from breaks in the conversation, and people's tendency to move off from me or shorten their visits when I was present.

I had a place in town now where I lived most of the time. I had asked Yvette in a half-hearted way to come with me and I was glad when she declined. I wanted to be away from her and her people.

I wanted to be away from them, first, because they made me feel guilty. Besides that, I felt that they were anything but an asset to my

growing business and reputation.

The Americans and the upper class Haitians were beginning to be friendly to me now and I spent most of my time in their company.

For the Americans, most of whom were there on business or connected with our occupation of the country. Voodoo, except for a gaping curiosity, was out of their world. Our military authority had suppressed it, told it that it must cease to exist, and that was that. Later, when our occupation ended, Voodoo was still there, as strong and rooted as ever.

The upper class Haitians mostly don't believe in Voodoo or ignore it as something which nice people don't discuss. I therefore felt more at ease in town.

Occasionally, however, I still visited Yvette and her people. When I did, I was very lonely for the old care-free life, missed the gay festivals, the quiet talks, the long, easy tropic days and nights. They treated me like a stranger of a higher class, one whom people have to be polite to but wish he was miles away.

It was clear to me by now that my next victim could be no one but Yvette. She was the only person on the island for whom I had a real affection. This was hard to take.

She had been affectionate and faithful, a satisfying wife and there had never been harsh words between us. But the fact was inexorable. Papa Daniel and b's little friend in the box had thus far been able to keep their side of the bargain. I saw no reason why, if I failed them, they could not do exactly what he had said they would do, give me a horrible death.

Furthermore, I wanted to go on, to have all the luxuries that were now easily within my grasp. I wanted to have people who counted and people who didn't look up to me as a big

man, one of the biggest men. Who was Yvette, a little girl of the lower classes on a West Indian island, to stand in the way of my golden future.

Both kinds of feelings I have described struggled in me but fear and greed had me. There wasn't much doubt as to the outcome.

I began paying more frequent visits to my old friends outside of Porte Au Prince. I distributed gifts and went out of my way to be the good fellow, hoping that way to lull suspicion.

A FEW DAYS before the day on which I would have to hand over my victim, I went out there. They were having a dance and Voodoo ceremony. I hadn't been told of it by any of Yvette's family, but had heard from other sources that it was going to take place.

The opening roll of the drums proclaimed it a Rada ceremony as I knew it would be. Yvette's family were devoted to the good Rada Gods.

I went about trying to be friendly and being very much left to myself. I had noticed on the fringe of the crowd about a dozen young men who seemed to be strangers in the district. They had rather a criminal look about them and didn't look as if they belonged there but I didn't think much about it.

Suddenly, the drums burst forth in the Dambala roll, the special roll which announces the coming of the serpent God, King of the Rada Loa.

The dancers stopped and automatically, a space was cleared as old Philipe, the hougan and Yvette's uncle staggered to the centre of things. His eyes had a glassy stare and he seemed to see nothing that was around him. He was in a trance, being "Ridden by the God," as they express it. The God would speak through him.

He began to speak. The natural voice of old Philipe was high and thin

and a little quavering. This voice was resonant and majestic and commanding.

He said, "My children, evil walks among you. It is the white man, Sidney Pell, who singles you out one by one and as animals are taken for the slaughter. You have given him freely of your goods. You have shared your food and your houses with him. Three have died. Three have become zombies in the possession of the bocor Daniel, first the other white man Simpson, then the boy Raoul, then Susanne your daughter. The next will be your daughter Yvette who gave him her love."

Then he went into details. He told about my bargain with Papa Daniel, of how Simpson had met his end, and all that was necessary to convict me completely, at least, in their eyes.

Now, you hear a lot of talk these days about the unconscious mind and what it does in sleep and under hypnosis.

That Uncle Philipe was one of those who suspected me, I was morally certain. These people live with magic and the idea of some one doing what I had done was not uncommon. It wouldn't require a Voodoo priest to detect it.

It wouldn't have been strange, therefore, for Uncle Philipe to denounce me in his trance. His unconscious could take care of that but the strange thing was that whatever or whoever spoke through him knew details which none but myself had previously known, which I had not even discussed with Papa Daniel.

In the midst of these thoughts, I heard the powerful voice say, "He may prosper for a time, but he shall never know peace. There may be more victims" but he shall die in a cold and lonely place in misery and terror. My curse is upon him. I Dambala have spoken.

The old man fell back in a kind of sleep or swoon, the sign that the God had left him, the way the trances usually end. I knew that he would come to in a little while, resuming his normal personality, and not remember a word he had spoken in trance.

I didn't expect to be alive many minutes longer. There was an ominous silence but I knew it was the lull before the storm. Like most festivals of the kind, this one was out-of-doors or partly out-of-doors. As I looked around, however, with the idea of dashing away into the jungle, I saw that my escape was cut off by a line of angry people.

Then, before I could see what was happening, I was surrounded by the young men I had noticed as strangers at the dance. They had drawn machettes but the points were outward, not toward me. They formed a sort of football flying wedge with me in the middle and made a headlong rush. Taken by surprise, the crowd fell back and let us pass. In a few minutes, we were in the dense jungle.

THEN, FOR the first time, I noticed their leader. He was the young athlete I had seen at Papa Daniel's place. He said nothing except to urge me to hurry. Soon we stopped at a clearing and there was the old bocor himself waiting for us.

He complimented them on their work of rescue and then said to me, "You have done well my son. We are discovered but we shall beat them. You will have to leave the island on the day you get Yvette for me. You would no longer be safe here and I might not be able to protect you. You can go back to America and get people for me there."

"But if I give the powder to people in my own country, how can you get them here?" I asked.

His face took on a malignant scowl. "That is my affair," he said. "You leave that to me, white man. I have never asked you to help with any of that. All you have had to do is the slight work of giving the powder. You tend to your part and I'll tend to mine."

I was put in my place and I found myself actually begging his pardon.

He was appeased. He said, "It is well my son and now, I will have you escorted back to town. I will see that you are well guarded throughout the time that remains. On the day, you will go to Yvette in mid-morning. She will be alone save for a few women who will not have sense enough to protect her. You will do your work and that very day, you must leave for America."

Papa Daniel's boys went with me back to my house in town. He was as good as his word about the protection, for his own purposes as I realized and not for any love of me.

A couple of his bruisers constantly guarded my door or hovered inconspicuously near me when I went out.

He even installed an assistant of his, a female hellion, in my house to inspect my food in case my former friends would think of trying poison.

On the appointed day, I visited Yvette. The men of the household and neighborhood had gone to help a farmer with some sort of work.

The Haitian peasants are very sociable and seem to love any excuse for a get-together. When some one has extra work, a crop to harvest or a house or barn to build, the neighbors and friends form what they call a combine and come to help him. The work is made easier and there is no end of eating and drinking and singing. In former years, I had had wonderful times at such gatherings but this one served a different purpose for me.

Only a few women remained with Yvette and though they were in no danger, they ran away as if I was chasing them with plague. Poor Yvette was completely crushed.

I lied and persuaded as best I could. I said that because I had luck and become prosperous, people had started rumors about me. I said that Uncle Philipe had heard those stories about me and that had made him talk as he did.

Yvette said, "Even though it's true, I still love you Sidney but it is true. The God Dambala has spoken through my uncle. Always the God Dambala speaks the truth."

I mumbled something.

She continued, "For a long time people have been saying that you sold yourself to a bocor. I denied it but I knew it was so. When Simpson didn't come back, I thought nothing of it. Things like that happen in the jungle. Even your sudden good luck after that didn't make me suspect anything. But then there was Raoul and then Susanne."

There was nothing I could say. I was torn between being sorry for Yvette and wondering how I could lull her suspicions in order to make her take the dose.

Yvette began to cry. She begged for mercy like a frightened child. "Oh please let me live. Don't make me become a zombie. Anything but that."

I said. "Listen. Even if what you think is true, I don't want to harm you Yvette. I'll go away and you'll never see me again. I have no need of you as a victim. I am going back to America and if what you think is true, I don't admit that it is but if it is, there are plenty of people there who will serve the purpose and you, my little Yvette will be safe."

That seemed to allay her fears and at that point Yvette played right into my hands. She sat down to drink some

coffee she had prepared for herself. I bent over her to give her one last caress and slipped the fatal powder into her coffee.

I knew that in a very few hours, Yvette would be dead and that the island would be untenable for me. I had made my plans. I had gone to a new acquaintance of mine, a ship's captain and a fellow American.

He was a tough brutal character. He despised the West Indian Negroes and wouldn't believe anything they told him. Consequently, he couldn't learn anything from them.

I SAID TO him, "Look here Captain, I've been playing around a little bit with one of the native girls. She's very sick with something or other, in fact, not expected to live. Her people have somehow got the crazy idea that I put some kind of a spell on her. They've got the whole district stirred up about it. If she dies, this place will be too hot to hold me. The American authorities might be able to protect me but it would make a lot of mess and talk. I know you're leaving and it would be a great favor if you'd let me leave with you."

"Sure, you can come along with us," he said, sipping his drink, the sixth I had bought him. "Those blacks are likely to think anything. Don't you worry, though. If they try to come aboard my ship, they'll take home enough lead to install modern plumbing in their houses."

I sneaked aboard the ship early in the afternoon of the day I poisoned Yvette. I thought the ship would never start.

They came for me. Toward sunset, I looked out from the port-hole of the captain's cabin at what was gathering on the dock, a dense roaring mob of outraged black people.

The captain had managed the port

authorities somehow or had intended to take more time than he did. He put his schedule ahead and we steamed out of the harbor, away from the angry mob. I shuddered when I thought how they would have cut me into more pieces than you could ever count. Now, I wish they had. I heard later that the American marines had to be called out to disperse the mob. No matter. I was safe.

Back in the States again, I had a wad of money. My first thought was to head for my home town back in Texas.

I wanted to show that I was a success, had made good, hadn't just gone on the bum as I knew many of the townspeople thought. In addition, I had another reason.

I'm ashamed to tell it but I resolved in telling you this story to hold nothing back. I knew that getting in touch with my people would provide me with more victims.

So I went home. I didn't have so much money as yet but I knew how to make an impression with it and I knew I would have more. I let it be known that I was just taking a vacation and looking around for investments. This was really the truth.

I consulted the beast. Following its instructions, I bought a spot of land a little way out of town, a place which as every one said, you couldn't grow thistles on.

People laughed and said, "A fool and his money soon part."

Their opinions didn't worry me. By this time, I knew the beast was always right. I simply called in some experts to look for the oil which I had been told was there. They found oil in abundance. I got three hundred thousand for the property and was the hero of the town.

I came east again. It was then that I met Arnold Hinkley. We went in

the brokerage business together and everything I touched prospered. I'm worth eleven million at the present time. With a little exertion, I could have much more than that.

Through Hinkley and his wife, I met Maud whom I married. She didn't worship me as Yvette had but we liked to go places and do things. I was fond of Maud. The most important factor to me was that Maud had social connections.

She was really "in," and I got "in." Little Sidney Pell, the boy from the Texas village, ex-waiter, taxi driver was up with the best of them, going to Society functions and meeting the people who counted.

Don't forget, though, that during all this time, I had to be on hand each year with the human sacrifice.

THREE WERE my brother, my sister and her husband, a boyhood sweetheart, a teacher from high-school days, a fine woman who had understood me or tried to when no one had, two cousins a man and a woman who had been quite close to me and my father and mother.

You may wonder why suspicion never fell on me. It didn't. Some people may have wondered how it happened that I was around at the time of or just before so many sudden deaths. At worst, they would think me a kind of a jona but millionaires aren't apt to be regarded as jonas.

Any such idea as Voodoo or zombies was as far out of their world as the doings on Mars.

You will probably say I was getting away with murder and having a wonderful time at it.

You'd be right on the first point but not on the second.

My murders were completely successful. So were my financial dealings but I wasn't having a good time. I enjoyed nothing.

It had never occurred to me that I could have everything I wanted and be completely miserable but that was just what happened. I had money coming in almost automatically. People looked to me, talked to each other about me. I could see them look at me with envy as I passed and heard them behind me pronouncing my name with awe.

My name was in the papers, in the Society column, on the financial page. Every time I went to a night-club, some newsperson thought it was worth writing about.

Back home, people bragged about me as a product of their town and parents told their boys I was the example for them to follow.

I had houses, automobiles, yachts, travel. I knew all the important people in finance, in politics, in Society.

All this just didn't mean a thing. My nerves were shattered. I developed a gastric ulcer and couldn't eat. I haven't slept a night without a sedative for years. When I did sleep, they came to me in my dreams, Raoul, Yvette, my parents, looking like themselves but also like the ghastly creatures I saw that morning in the Haitian cain field. Only these people could speak and they told me they knew what I had done to them and how I had made them suffer.

I took care no one slept near me in case I might talk enough in my sleep to give away my secret but Maud heard my yells and reported it to the doctor. He suggested that I mustn't read mystery stories. I was probably too sensitive to stand the gruesome details.

I couldn't find a moment's peace but I had to go on.

Finally, the list of victims narrowed down as it was bound to do. I decided that Arnold Hinkley had to be next. It's no wonder that as his wife told you, I acted in a strange way

at the time. I liked him better than any man I had ever known. Good old Arnold. He was always so willing to do all the work and tend to the details to save me because I wasn't well. He looked up to me as a financial genius.

He never realized that I knew nothing about the actual workings of finance except what I learned from him. What he considered my brilliant coups which always payed off in huge profits were, of course, the instructions of the beast in the box.

Well, I planned on Evelyn Hinkley as my next victim after her husband. She had been very kind to me, had shown me places and introduced me to people when I first came to New York. It was really through her that I met Maud. We were both fond of her and as you know, we named our little girl after her.

Evelyn Hinkley is an unusually fortunate woman in one way. She doesn't know it but she saved herself by accusing me of murder. That placed her outside the pale of those close to me. I was told very emphatically by the beast, that as a victim, she would not do.

So it had to be Maud. She was more fortunate than poor Yvette in having no inkling of what was to happen to her. There is nothing of importance about that case that you don't already know.

It was then that I came face to face with the final decision.

In all these years, there had been just one bright spot in my life. It was our little girl Evelyn. To be with her at breakfast, to hear her eager chatter and see her happy play and her curiosity about everything, to tell her stories that made her exclaim with wonder and call for more, to join her in nonsensical child games, these things came to mean more to me than

everything I owned or was supposed to be.

Everything that was fresh and free and innocent and happy seemed to be centered in her. She was my one link with a world that used to be fit to live in.

How many times I worried lest something terrible would happen to her as punishment to me.

NOW THAT Maud was gone, this issue presented itself squarely. There was just one more person I really cared for, just one more possible victim. That was little Evelyn. Could I add her in my dreams as another ghastly figure in the Haitian cain fields. Could I stop all that eager life and hear her in my dreams, "Daddy, you did this to me."

The mere thought made me sick as if I had done it.

I tried to find a way out. Perhaps, I would meet some one, a man or woman, a friend or mistress whom I would come to like and who would stave off the decision.

I gave parties. I went to parties. I met a number of pleasant people. There was a young lawyer whose company I enjoyed but he was no such friend as Arnold Hinkley. I had a light affair with an artist's model a very beautiful girl but she wasn't Yvette or Maud to me.

I thought of palming one of them off but the beast said plainly, "He won't do. She won't do. Give us Evelyn. Little Evelyn is the only one who meets our terms."

Finally, I knew what I had to do, what must come to pass. I made all necessary last arrangements. Evelyn is now on board a ship on her way to Europe with her governess. After a trip planned to be a happy one to make her forget the news of my death, she will be placed in a girls' school in

England, one of the best.

Now, Mulroy, I have told you my story, everything I can think of. You probably wonder why I told you all this. It's just that we human beings are lonely. Every one of us wants to be heard and understood. I chose you because if I had told it to any of my associates in business or the people I know socially, it might in some way damage my daughter's future which I want to keep free from any such taint. You seem like a decent fellow and I think you'll be discreet.

For the same reason, I chose this place out in the country, away from any one who knows me. Anything like this in the city would have the consequences I am trying to avoid. Interestingly enough, it falls out that I am fulfilling the prophecy made by the Loa through Uncle Philipe that I would die a horrible death in a cold and lonely place.

That's my story and the time is drawing very near.

I SAT BACK as Pell finished his story. I didn't know what to make of it all. "What a yarn," I thought.

It occurred to me that Pell must be insane. But I have run into a good many insane people in my work and their stories don't usually hang together as well as this one did.

"I'd like to ask you some questions," I said.

"By all means."

"In the first place, how did they manage to get those bodies. Especially, how did they get your wife out of the undertaking parlor with all those people around, even our men.

"You know as much about that as I do," said Pell.

"I was never let in on that side of it. They could have made the body invisible and walked it out or carried it out. You don't believe that, but you soon will."

"Another thing," I said, "you tell me that what you had to do was bothering you. Why didn't you try to get rid of the beast in the box. There's lots of ways."

"Do you think I didn't?" he answered in a way that showed he meant it.

"I threw it in a fire and it wouldn't burn. I put it on a railroad track and let a train go over it. Not even the box was damaged. I actually thought I was free when I dropped it over the side of a vessel in the middle of the Atlantic ocean. On the day I arrived at my hotel in London, a package was brought to me, sender unknown. It was the beast in the box.

"Here's one more idea," I said. "You could have committed suicide. I don't believe in suicide myself. It's against religion. Still, if you didn't think that way, you could blow your brains out and save yourself from the death you say you're in for. You can even do it now."

"No," said Pell. "I've thought of that, especially in the last year. I don't know what I believe. I don't know whether I think suicide is right or wrong. Naturally, though, any one who has seen the things I've seen, things not included in what's known of science, he can't just believe that what we see on the surface is all there is to it. As I thought it over I realized that suicide would be something one couldn't change. It closes the door. It removes the last chance. I committed those crimes. It would be better to pay for them here and now and meet the fate I know about than something probably even worse which I don't know. Crimes could hardly be worse than mine but this way there may be a slight chance."

"It's deep stuff. I don't get it," I said. "I understand about your being in Haiti, about your dishing out poison to the native girl and the rest but all

this about the old wizard and the beast that could speak. It sounds like things the old folks from Ireland used to tell me when I was a kid."

"I don't blame you for not believing me," he answered.

"Oh, I'm not saying I don't believe you Mr. Pell but the beast in the box is kind of hard to swallow."

"I thought so myself when I first heard of it, even when I first saw it," he said, "but you'll have to believe it. Here it is."

He took from his pocket a little round black box and put it on the table, then poured himself a large-sized shot of whisky. He had almost finished the bottle by this time.

"We won't open the box," he said. "The beast will come out of its own accord this time."

My eyes were glued on the little box. I was beginning to feel creepy. In a minute or two, the lid began to raise. Then out it came.

It was a tiny lizard-like thing, exactly as Pell had described it. Its face when you looked close, did seem to have the features of a shriveled evil old man.

The little eyes were as wicked as Pell said they were. But when I looked into them, I didn't get that lost feeling he spoke of. They just made me mad.

"I won't let a baby alligator stare me down," I thought but I almost jumped out of my skin when the beast began to speak. It had a tiny squeaky voice but there was no mistaking.

"Sidney Pell, you have broken your agreement and you shall die. Very soon, you are going to die."

Pell stood up but he didn't say anything. I thought there was that little queer thing on the table. Why couldn't I ring its neck.

I made a quick grab for it but it was quicker than I was, and it got my hand with little rat teeth, a deep

bite, then jumped to the floor.

I kicked at it and it got my ankle in the same way. Then, I was mad. Without waiting to stop the blood which came freely, I got the poker and heated it until it sizzled. I squatted down and made a swipe at the little monster which really landed but it wasn't even bothered.

Then, I noticed something that nearly floored me. It really was growing. It had become the size of a rabbit, then the size of a cat.

Watching that nasty scaly body swelling and stretching and raising itself up off of the floor made me almost sick.

WHEN IT got to be cat size, it began to make a noise, in a human voice but a sort of cooing sound, ah-ah-ah-ah. Pell was huddled in the far corner of the room, kneeling. His lips moved. I think he was praying.

I waited until the monster became the size of a large dog. Then I went to work on it with my automatic. I had brought along an extra supply of cartridges, not knowing what I might run into. I let the beast have every one of them.

I didn't miss. I have a police prize for marksmanship and besides, the thing didn't even try to dodge. The bullets might as well have been paper wads for all the damage they did.

"Let's run for it Pell," I yelled.

"It wouldn't do any good," he called from his corner.

"You can if you want to but you're perfectly safe. No harm will come to any one but me."

It was as big as a horse, as big as an elephant and grew still larger. Its face was more human now, the worst face I ever saw, with all the crimes ever thought of written in it. The eyes that had been tiny and beady were as big as saucers and they blazed

like a couple of flames out of hell. The cooing noise had become deeper and louder. Now it was like an elevated train but about nine times as loud.

Then things began to happen. I was knocked flat and swept against the wall. I couldn't see what was going on. The immense hind-quarters of the beast were in my line of vision.

But I knew what was happening. I heard screams of agony, will I ever forget them. I have heard people screaming in hospital wards, in straight jackets, in the death cell but not that the last torment that was in those screams.

I passed out.

When I came to, I hoisted myself up. The beast was gone. Of Sidney Pell, the man I had been talking to at the table a little while before, all that was left were some bones, bones scattered in all directions around the room, with bits of clothing and shreds of flesh hanging to them.

I noticed another thing that made me move quick. The oil stove had been knocked over in the fracas and

flames were shooting up the wall.

I got out. I looked for foot-prints of the beast but it had started to snow and there were none. I don't even know whether it made any.

By the time I got back with help, the flimsy shack was burned to the ground and what was left of Pell had gone to ashes.

I had somehow hung on to my notebook with Pell's story, unfortunately without his signature. I had no idea, though, that I'd need proof. All I thought was that I must get back to the city and report to O'Bryan and Walsh. There's where I made my big mistake.

I could have made up a story. Pell tries to shoot me. The gun goes off and kills him. The stove is knocked over in the struggle. Anything like that would be all right.

I told them everything just as it had happened and lost the job I had done well at for twenty years. They would have believed any lies I might have told them but they couldn't believe the truth.

THE ATOMIC RAINMAKER



By L. A. BURT



KEEP IT simple, Doctor," the reporter said, wiping the sweat from his dripping forehead, "but just what is the principle behind artificial rainmaking?"

Dr. Grayson smiled. He looked completely cool and collected despite the arid Texan atmosphere.

"The best way I can put it," he answered, "is to say that artificial rainmaking goes back to the principle of the Wilson Cloud Chamber!"

The reporter looked more mystified than ever. "Start talking, Doc," he said, "start talking..."

Dr. Grayson actually put it better than he knew. Artificial rainmaking is a variant of the Wilson Cloud Chamber, but even rainmaking bows to this unique and versatile instrument whose virtues have been so overshadowed in the popular mind by

the ubiquitous "Geiger-Mueller Counter" and Uranium fission.

The Wilson Cloud Chamber (it's usually capitalized) is a simple, fantastically effective and amazing instrument for showing atoms in action. It's as old as radioactivity almost and it has provided many of the answers to the atomic physicists' problems. It is so easy to make and operate that it is at present being embodied in a toy scientific set, but in no ways is this gadget inferior to its bigger laboratory brother.

The Cloud Chamber, named after the famous British physicist Wilson, is a device for making the tracks of atoms visible. Radioactive materials which throw off atomic particles can be studied in detail with this versatile and efficient tool, and you don't have to have a fifty inch cyclotron handy to demonstrate the technique.

All that a Cloud Chamber is, is a glass vessel, a cylinder or a jar (the more elaborate ones are of brass with glass surface plates) whose volume can be abruptly expanded. The simplest form of the Cloud Chamber uses a conical flask with a rubber bulb at the end. The ratio of expansion may range from about seven to one, to four to one.

A small amount of a mixture of alcohol and water is placed in the bulb. Naturally after a little while, the vapor-air mixture above the surface is saturated with water vapor after having attained equilibrium. If the bulb is now squeezed, the air is compressed, heated somewhat and capable of absorbing more moisture. This it does.

If the bulb is suddenly released, there is a cooling effect, and the atmosphere above the liquid is "super-saturated" with moisture, meaning it carries more than it should at that new temperature. Now, here is where the key operation comes in. If the air above the liquid (supersaturated air, that is) contains no tiny particles of dust or dirt, or no tiny ionized or charged electrical particles, nothing will happen, for liquid to condense out of saturated or supersaturated air, requires nuclei of condensation in the form of dirt or dust.

Now imagine a small amount of radioactive material in the chamber. Alpha particles (helium nuclei) are being given off. They travel rapidly through the chamber and since they are charged they cause water molecules to condense in clusters in their path. Clearly, an exact track of the particle may be seen! This is true of other atomic particles as well.

Thus with a Wilson Cloud Chamber and a camera, it is possible to record and observe the disintegration atoms. Possible even fission might be disclosed under those conditions. The Wilson Cloud Chamber has no peer when it comes to examining atomic events.

The relationship between rain-making and the Cloud Chamber is obvious. When scientists "seed" the atmosphere with particles of salt or iodine, they are just supplying condensation nuclei, much as the atomic particles in a Cloud Chamber. The air is a vast Wilson Cloud Chamber in effect.

The simplicity and effectiveness of the Cloud Chamber makes it a part of every scientific laboratory, but that very fact should make it as familiar to the average person interested in science, as the motor of his automobile.

BUOYANCY PROBLEM



By LEE OWENS



SCIENTIFIC and mathematical puzzles have an irresistible fascination for people. In some instances they may even be as popular among certain groups as crossword puzzles are generally. This basic desire to solve a problem—even if it's only in fun—is just about the greatest asset humans have, since problem-solving in one form or another constitutes Man's greatest activity.

Archimedes' principle of buoyancy, a simple, easily understood scientific law, has been the cause of many interesting puzzles and paradoxes. The story of Archimedes detecting the falsity of the alloy used in making a presumably "gold" crown for the king is well known. Not so well known but just as interesting is a scientific problem that is often presented to physics students considering the matter of buoyancy.

Archimedes' principle says that a body or object immersed in a liquid is buoyed up with a force equal to the weight of the liquid displaced. Water is considered in most cases. So, if an object displaces a weight of water less than its own, it sinks. If not, it floats.

The problem is this: imagine a scale or balance, in equilibrium on one arm of which is a pan or beaker containing a certain volume of water—say, half-filled. Weights on the other pan balance this

beaker and water. Now imagine an iron weight of a definite mass hung from a string not connected with the balance, into the beaker of water. The question is: what happens and why?

It's surprising how confused one can get by such a simple little problem unless care is taken to distinguish exactly what is going to happen. Obviously the iron weight suspended in the water is neither going to float nor move. Hence if anything will move, it will be the balance arm. But which way? Will the beaker show more or less weight and by how much?

The answer is clear—the beaker shows more weight, exactly equal to the weight of the volume of water displaced by the iron weight. Thus if the iron weight had a volume of fifty cubic centimeters the balance scale would show a reading of an additional fifty grams!

Off hand that seems easy, but students generally don't find it so. The paradox of the hydraulic press wherein a small force can be turned into a large one, or the Pascallian principle of pressure the same anywhere in a liquid, are not quite as obvious as they seem.

You don't have to go to modern physics with its rocketry and electromagnetic waves to run into problems. It's surprising how tough the simple little things can be too!



Where science fiction fan clubs get together.

Conducted by ROG PHILLIPS

THE OTHER day when I was down at Z-D looking over my mail I opened a letter that began, "Dear Mr. Phillips: Pardon me for breaking in on your time like this when I know you are busy writing stories—but then I am busy reading your stories." I read that to Howard Browne, the editor. He laughed, then said, "When the readers stop writing to you or about you I'll stop buying from you."

I knew what he meant. He was touching on the perpetual nightmare of all writers. Reader reaction. That indefinable something about a story which appeals to the reader, whether the story is well written or poorly written. I doubt if any writer ever really knows what it is so far as it applies to his own writing. If it's there, he is successful. If it goes, he soon finds that no matter how well he thinks he's writing, his stories fall flat.

So when letters come in I know that that spark is still with me. The time hasn't come yet when I will have to go to work. (Horrible thought.) Writing for a living is like being a rich man, without all the worries about one's millions. It isn't really work in one sense of the word, because, as I've found, when it becomes work it doesn't come out as good work. It has to be fun. All absorbing, intensely pleasant fun.

So when Rick Sneary in his intriguing article in the June *Spacewarp* entitled, "1958" says, "Will *Amazing Stories* keep on buying five stories by Phillips for every issue? Or will the big writers submit their best to *Amazing*, to get the higher rates?" I consider it one of the finest compliments I can get, even though it's far from true.

The article "1958" is a very thought-provoking article. It reviews the past of stf publishing. Rick has discovered that the number of science fiction magazines in print follows a ten year cycle of peaks and valleys. At present it is at or going into a peak, with twenty-two magazines on the stands, and predicts that the boom will run out in 1952. It's a thought-provoking analysis of stf magazine publishing. It's in the June issue of *Spacewarp*, one of the few fanzines that is published regularly without fail, and always full of such interesting well written articles by

fans. You can subscribe to *Spacewarp* by sending a dollar to Arthur H. Rapp, 2120 Bay St., Saginaw Michigan, which will bring you nine issues.

Paul Ganley, 119 Ward Road, North Tonawanda, New York, editor of *Fan-Fare*, asks if there is a contest running like the one last year, where this department offered a hundred dollars in prizes for fan achievement. The object of that contest was to encourage fan activity. It was found that it had no noticeable effect on fan activity. The biggest thing wrong with it was that the fan editors of some of the zines containing the best efforts of fan contributors didn't make any attempt to have their readers pick out what they thought the best articles and stories, so that the prizes were awarded without fair representation. Anyway, from the looks of things it seems fans don't need any encouragement now. They're more prolific in their productions this year than ever before.

H. S. Weatherby, HM1, Editor of *Shivers*, Hosp. Corps School, U.S. Naval Hospital, Portsmouth, Va., says in a card to me, "By no means do we want to write our own reviews. We'd rather quote yours verbatim, giving credits. If we don't deserve credits, then give us the razz. That's the only way Y'r Navy Editor will break into the prozines: by self observance." He has something there, but on my side of the ledger is the growing number of fanzines that makes it almost impossible to read them all and review them fairly. Those of you fan editors who want to write your own reviews will be most heartily welcome!

As for handing out razzes, huh-uh. I know that some of the worst looking jobs of mimeography I receive were more of a labor of love than some of the finest professionally printed ones. One thing I will never do in the Club House is sneer at the sincere efforts of any of the fans. For example, one of the fanzines being reviewed this time arrived practically unstapled, with pages mussed and some of them poorly mimeographed. It's readable, every bit of it, and the material in it is tops. Should I sneer at it because the postman got careless or something? That would be poor reward for its editor who spent more time publishing it than I can

spend reviewing all the fanzines! My policy always has been and will continue to be to ignore shortcomings.

Earl Parris, Box 228, Lewes, Delaware, complains that he doesn't like it because fans aren't so different from other people that they can't instantly recognize one another on the street. The thing I like about his type of complaining is that instead of just complaining he is doing something about it. As he says, "A very simple solution came to my mind some time ago. A lapel pin. One that is symbolic as possible and will immediately identify any person who has one as an STF fan." He has gone ahead with his idea and now has such pins ready to sell to any fan who wants one. They sell for a dollar. I think this is a good idea. As soon as he sends me one I'll describe it carefully so that you will all be able to recognize it when you see it.

The Convention Memory Book is now completed. By the time this reaches the stands all of you will already have yours. The edition is limited to five hundred copies. If you didn't get yours you might still be able to get one by sending a dollar to Don Ford, Box 116, Sharonsville, Ohio. It's a monumental work. Ninety-six pages of excellent mimeography, with photographs here and there. The front cover is a beautiful view of Cincinnati, the back cover a beautiful fan work-of-art by Don Fruchey Jr. Its contents number the speeches made at the convention and also the thoughts of many who attended, including a page of my own thoughts on it, which sound better on reading them at this late date than when I wrote them at Roy Lavender's request last Labor Day while there. It marks the final chapter of the World Science Fiction Convention of 1949.

This year it's to be held in Portland, Oregon. By now you know whether or not you're going, and are probably getting the last details ironed out so you can get started on your trek to Portland. But if you're one of those who would like to go to the annual science fiction convention and still don't know about it, write to NORWESCON, Box 8517, Portland, Oregon. I'll probably be there myself, and I think Howard Browne will be there.

In fandom there are two amateur press associations. Both are set up along the same pattern; limited membership with publishing of a minimum number of pages a year a requirement for membership. All the published material is sent to the official editor for mailing out to the members in quarterly bundles. At present the minimum activity requirement in both clubs is eight pages per year.

THE SPECTATOR AMATEUR PRESS SOCIETY, otherwise known as SAPS is the newest and most prolific of the two. Its official editor is Arthur H. Rapp, 2120 Bay St., Saginaw, Mich.. At present it has twenty-seven members. In the spring

1950 mailing sent me for review is a total of a hundred and ninety pages. Twenty-seven fanzines! Most of these aren't for sale outside of the SAPS. Those that are listed here:

Graveyard; Richard Dittmar, 509 W. 183 St., N.Y. 33.

Universe; Ray Nelson, 433 E. Chapin St., Cadillac, Mich.

Etaoin Shrdlu; Steve Taller, 40 W. 77th St., Apt. 2F, N.Y. 24.

The rest aren't for sale outside SAPS, which is too bad in a way, but understandable, because these boys and gals publish for the fun they get out of it with no thought of making expenses. Dues are a dollar a year, and that barely pays the postage on the four mailings each year. If you would like to join you can get on their waiting list and hope!

FANTASY-TIMES: 10c, 12/\$1.00; twice a month; James V. Taurasi 137-03 32nd Ave., Flushing, N.Y., is still the top-newszine in fandom in my opinion. Beginning with the first May issue Bob Tucker becomes F-T's book reviewer. Lester Mayer Jr. has been reviewing Fantasy Films Radio and TV for a long time now. The way things are booming he'll have the biggest department of them all in the near future. Tom Gardner continues his annual feature of reviewing all the stf magazines on the stands, this time covering Amazing for 1949, and seeming to like my short story, "The Shortcut" best of all, with Hasse's "Project" second. As I've said before, I can't review F-T too closely. If you want to get the news you'll have to get the fanzine. It's worth it.

CATALYST: free; Clif Bennett, 656 Fifth St., Richmond, Cal.. So far as I can see this zine is not exactly a fanzine any more. However, it is a very interesting publication and doesn't cost a cent. This issue, no. 5, combines with Kitsiokla Newsletter no. 4.

EXPLORER: bi-monthly, 10c or 50c/yr.; Ed Noble Jr., Girard, Pa.. He writes his own review this time in answer to my invitation to all fan eds to do this. Let's see how much of a salesman he is!

"One thing about this 'zine, published for the International Science Fiction Correspondence Club, is that it improves with each issue, or so it is fondly hoped. Circulation increases, but it could grow more if enough fans hear of it. ISFCC is international in more than its name and merits actifan attention. The editor, hopeful of finding new prospects, prints a number of extra copies for requests. If you want to see EXPLORER drop him a line."

Hmmm. I can see the biggest defect in having faneds review their own zines. They're too modest. To show you, here's how he reviews my pocket novel "Worlds Within" in his fanzine. "A breezy, up-to-

date, multi-dimensional affair involving the latest planes being test flow, the Incas, entities composed of energy, and sundry other elements all mixed up in plot and counterplot, and involving a luscious bit of femininity even more enjoyable between covers than on the frontpiece by Malcolm Smith." See the difference? And *Explorer* is a far better fanzine than he makes out. You'll never regret subscribing to it.

* * *

UTOPIAN: 25c; R. J. Banks Jr., 111 So. 15th St., Corsicana Texas. Scooped in this May issue is a questionnaire filled out by Ray Bradbury that tells how long he has been writing and how much he has written. Nope, it's Utopian's scoop. I can't steal it and tell you what it says, except maybe to tell you Ray is married and has a daughter Susan, born November 5, 1949. Lucky guy. Any girl about five five or taller dumb enough to hook up with me? I doubt it!

R. J. Banks steals a page from *Amazing* and gives the number of words in each story. "Waves Indeed (965 words)", "The Skull (257 words)" etc. Mr. Banks states that his fanzine needs original material, the longer the better. Here's a chance for you budding fan authors to get in print. And for you potential subscribers, stories by fans are just as good in most cases as the pro stuff!

* * *

DESTINY: 10c, Spring 1950; Jim Bradley and Malcolm Willite, 545 N.E. San Rafael, Portland 12, Oregon. That's where the NORWESCON is being held this Labor Day! Something really original is the title of the editorial page of this zine; "The Steam Room...where the editors blow up." Poems, excellent art work, short stories, and articles make this an all round fanzine of the kind I like to see. Not too professional, and indicating its editors had a lot of fun publishing it. Get it! Get it.

* * *

USES: 5c; Lou Sherman, P.O. Box 83, Gravesend Station, Brooklyn 23, N.Y.. Lou states in his editorial, "When one puts such a monstrosity as USES out to face the general public, he owes those who have been sucker enough to buy it, and those unfortunate enough to have been tricked into accepting free copies, a word of explanation. I like the old time fanzine, filled with mad space poetry and idiotic stories. But since fandom seems to be getting serious nobody seems to put them out any more. This mag is an experiment to see if you'll read and enjoy the old style fanzine."

That should be enough sales talk, Lou. If you don't get plenty of subscriptions I'll eat the next copy you send me! I prefer the informal old style fanzine myself.

With *Uses* came two one-sheet fanzines, "Bugs", and one called "The President's Message". Both free.

* * *

NEKROMANTIKON: Vol. 1, no. 2, Summer; 1950 Spruce Ave., Kansas City 1, Mo.. Manly Banister, Editor-Publisher. 25c per copy. Reviewing this fanzine, if it can be called that, is like reviewing *Fantastic Adventures* in the CLUB HOUSE—if FA were to go slick. And cut out its reader column. This fanzine is even copyrighted, and it should be because it has top quality material in it.

Its illustrations are almost as good as those in the Z-D magazines and much better than those in most of the other proletarian fanzines on the market. I can't see why Manly Banister doesn't run off a few thousand copies and put it on the magazine stands! If I'm any judge it must cost him at least fifty cents a copy to put out five hundred copies.

But it serves one wonderful purpose. Fan authors who get their works in *Nekromantikon* have a very beautiful publication to treasure. Wilkie Conner, Battell Loomis, Herman Stowell King, J.A. McKee, and M. Houston are the lucky ones this issue to have their stories in it.

* * *

RHODOMAGNETIC DIGEST: May '50; 25c; George Finigan, 2524 Telegraph Ave., Berkeley Calif.. Forty pages. George Faraco the art editor, or whoever else of the twelve people that put this zine together is responsible for the reproduction of the art work really deserved to be congratulated for such excellence. There's an article by John W. Campbell Jr. on Dianetics (which I irreligiously think of as a mystery-thriller titled "Die in Attics"—probably because I didn't think of it myself.) And there's plenty of other subjects by top fan writers and pro writers.

There's also a running discussion of reprint rackets. All authors should refuse to submit material to markets that are known to "buy" all rights. Unfortunately few authors can afford to pass up a chance to sell a manuscript, and are generally grateful that it's sold. Earlier this year I turned down a chance to write a book for that very reason. I happened to know that almost invariably the publisher in question managed to defray the cost of the manuscript by selling reprint rights and keeping a whopping big percentage of what he got for them. I prefer dealing with companies like Ziff-Davis who play fair with authors. And you know, that's half the battle in writing good stories. A publisher who gives an author a break will get good work. A publisher who O.K.'s an outline and then rejects the story—not because it's poorly written, but because he changed his mind about liking the outline, as one editor I know of has done to several authors, is going to wind up eventually with a magazine of stories submitted only by beginners who don't know his reputation.

The basic trouble in the whole mess of author's rights is that the average author is tickled pink just to find an editor who will buy his story. He accepts the imme-

diate cash, and if it means signing away all his rights to future value of the story his modesty whispers, "So what? It probably doesn't have any future value anyway."

As the editors of *Rhodomagnetic Digest* point out, the only weapon we have against the many reprint magazines now appearing is to refuse to buy them.

* * *

JOURNAL OF SPACE FLIGHT: published by the Chicago Rocket Society, 25c, \$2.25/yr.; Wayne Proell, 10630 S. St. Louis Ave., Chicago 43, Illinois. Both the Chicago Rocket Society and its journal have come up a long ways in the past three years.

Complaints have come to my desk about the American Rocketry Association of Washington D.C., which has no connection of any kind with the Chicago Rocket Society. The complaints charge specifically that the American Rocketry Association, apparently a one man operation, is charging three hundred dollars for non-research members and a hundred dollars for research members, and that it is sending a list of "members" to applicants totalling six thousand "members", a couple of whom are pen names of mine, some of which are house names of publishers (author names that aren't the legal names or pen names of living persons at all) and also "members" who are people who have died. One complainant states that Rog Phillips is listed as a member I am not a member of the American Rocketry Association, nor have I received any literature from them listing me as a member. Both Ziff-Davis and I would be greatly interested in receiving any literature of this sort sent through the mails by the American Rocketry Association that shows such evidence of misrepresentation and attempt to defraud. This is the only thing of this type that has ever been brought to my attention. Until it is cleared up the American Rocketry Association and its official organ, *Space Magazine*, will not be reviewed in the *Club House*.

I've brought this subject up in this spot to emphasize the fact that the Chicago Rocket Society has no connection whatever with this other group. They neither charge exorbitant membership fees, nor do they list their members. I have attended their meetings and seen that they are a live, energetic group of likeable and intelligent men and women, boys and girls. They hold their meetings once a month at Roosevelt College in Chicago. They also keep in contact with other Rocket Society groups throughout the country. If you are interested in space flight and its problems, and current advances in rocket research, by all means write to Mr. Proell and let him know.

The May issue of the journal devotes most of its pages to discussion of space stations and the various problems involved in their construction and operation, as well as their effect on the general problem of spaceflight.

EUSIFANO: 10c; published by the Eugene Science-Fantasy Society, P.O. Box 161, Eugene, Ore., Phone 5-5774, Rosco Wright, D.R. Fraser. Meetings of the E.S.F.S. are held on the second Wednesday of each month. Their fanzine is well put out and contains much of interest to general fandom.

In the current issue is a wonderful statement: "There is no defense except stupidity against the impact of a new idea."

* * *

SINISTERRA: "The publication of the Nameless Ones, vol. 1, no. 1, of which this is copy no. 104." The editorial staff isn't so nameless, however, listing G.M. Carr, Miles Eaton, R.W. Frahm, and Ed Wyman. They have a right to be proud of this zine. It's very well put together, with a heavy paper back a little larger than the inner pages.

Now, let's see...it's by the Nameless Ones of Seattle, Washington. Where's the address? No address. If there's a Wolf Den Book Store at 724 1/2 Pike St. in Seattle that might be it. That's where it says they got their mimeograph. You know, I think they were so interested in publishing their fanzine they forgot to put in where to send your subscriptions!

From all I hear the *Nameless Ones* have a thriving fan club in Seattle. If you live in or near Seattle you can undoubtedly find out where to get in touch with them by calling up the Wolf Den Bookshop. (If not, I'd suggest you Nameless Ones rush down there and post your address right now in anticipation of the rush!)

Most interesting article in this first issue is "The Immigration Theory of Planetary Origins", pp 24 to 28. There are thirty-six pages, and all of them worth reading. A lot of nice short stories.

Let's hope that next month this lack of definite address will be cleared up. Meanwhile I'm quite sure you will be able to get a copy through the Wolf Den Book shop. The price is 25c.

* * *

In a neat pile to the right of my typewriter are the fanzines I've just finished reviewing. I've been looking at them reverently, thinking as I always do each month at this time of the many thousands of science fiction fans all over the North American continent, and all over the world. People of all ages who have discovered the World of IF, and all the riches it contains.

In a way, we who have broken through into this world of the imagination where a highly developed scientific future awaits, holding out its hands in invitation to humanity, are the vanguard of that humanity. We number among us the scientists in all the modern research laboratories, writers like myself who try to envision future reality at times when we can see it, and the vast reading audience which contains future scientists

(Concluded On Page 162)

The Reader's

FORUM



COLLEGE HUMOR

Dear Ed:

First, would like to say that I agree completely with Waldo T. Boyd's opinions on the need for something new in sf. Have noticed this plea in several letter columns; may it lead to something.

What I wrote this letter for (if my English 312 prof could see that!) was to inquire about "Cosmic Cleanup" in your July issue. Said tale is strangely reminiscent in style, format or what have you, of the Alexander Botts—Earthworm Tractor Co. stories in the Saturday Evening Post. What gives, is Botts' creator trying for a little more lucre in a new field? Or has he "tranzed" a tale concerning one of Botts' descendants? No complaint, enjoyed said yarn almost as much as I enjoy Botts himself. Just curious.

And before I close, congrats on your reformation, renovation or whatever. You had sunk to the point where I had found in one issue a story I actually could not finish. I simply had no interest in the story line or characters. Something about a mechanical Pegasus which was really an airship used by an ancient civilization somewhere in the Far East. I think Ray Palmer's leaving was a great thing for both you (AMAZING, that is) and OTHER WORLDS. AMAZING has improved tremendously under your leadership & OTHER WORLDS is out of this world.

And one more gripe. How about a little—just a little—science-fiction on the cover, and not so much sex? When I try to convert my friends here on the campus to the reading of sf, they take one look at the cover and say, "Aha, another sex magazine. Gert, you better stay away from Bel on these dark nights." Just a little more sf. Even a BEM. Huh?

Ralph P. Belsinger
Wilberforce State College
Wilberforce, Ohio

Mr. Hickey, author of "Cosmic Cleanup" must have gotten his idea for that story from the "Earthworm Tractor" series. But being a man of imagination and a good writer, he did something about it! —HB

DO WE HAVE TO BE EVIL?

Dear Sir:

Have been a reader of AS for many

years. I have one objection. All stories have so much of utter evil in them. Don't any of the authors have any ideas to write into their stories that would inspire higher ideals in the minds of the readers. Each time there is a group of people who are free from ideas of violence in the stories, they seem to be represented as soft, degenerate, and useless.

Now I would like to know if there is a science fiction fan club in San Francisco. I would like to get the address and find out when they meet.

I shall continue reading AS, as sc'ence fiction is the only type of stories that appeal to me.

Stephen Bartolowitch
216 7th Avenue
San Francisco 18, Cal.

For a story to have drama, there must be conflict. To have conflict there must be two opposing forces. One of these forces must win the reader's support (usually the "good" force); that leaves the other force no choice but to be "evil". It appears that living itself is nothing more than an endless struggle between "good" and "evil". The difficulty for most of us is trying to put those labels where they truly belong. —HB.

COVER UP FOR REAL BEAUTY

Dear Editor:

About two years ago AMAZING STORIES and I became acquainted thru a mutual friend and ever since the magazine and I have been good friends. I rarely read the fan-writers' section because the long letters they often write bore me to try to wade thru them all. But in the June issue of your magazine I noticed most of the letters were comparatively short.

There was one in particular which interested me, because that writer and I seem to share an idea. The letter was by a Morton D. Paley. He said something about tolerating "sexy covers as a necessary evil. But when sex invades the stories and inside illos, it's a different matter." And he goes on to say that fans will not read an sf—sex magazine. I agree with him. Maybe some people like sexy stories but not the majority. What I'm looking forward to is good, clean science-fiction; like the British have.

Either their writers just don't write that way or else the censors get after them. In that respect I like British sf better. One thing American sf needs is some sort of censorship. A lot of authors spoil otherwise good stories.

Now about the illustrations. (You asked for all this, you said you wanted to hear readers' ideas.) A great deal of your artists seem to be suffering from the delusion that a dame can't be beautiful unless she's half undressed or even more so. Not true. Some wise person once said that the real test of beauty is to be beautiful while fully clothed. That's a challenge to your mag's artists. Get 'em to make a beautiful gal with all clothing on. Put a bug in their ears. Maybe they'll come up with some high class illos.

But...after all these criticisms, I have a bit of praise. In the June issue I particularly liked the illos for "Island Out of Space" and "My Brother's Keeper." I haven't read the stories yet, but I do like the two I did read; "Gloves of Gino" and "World Without Men" wasn't so bad except for a few spots. I liked your article about "Destination Moon." How about some more info about it?

Kirk Raymond

We're counting the votes. So far, the "let's-keep-'em-covered" faction holds a narrow lead.

—ED.

A GOLDMINE FOR COLLECTORS

Dear Sir:

I have been a constant science fiction fan ever since the first issue of AMAZING STORIES in April of 1926, what is more I kept the magazines. For instance, I have an almost complete set of AMAZING from 1926 to 1930 with only two volumes missing from it. The storage of this in my home reached such a point that my wife is beginning to rebel at the amount of space this takes up. I also have ASTOUNDING, AMAZING QUARTERLIES, WONDER STORIES, etc. I understand that some of those old issues bring good prices now, and I would appreciate it very much, if you would give me addresses of dealers or some private collectors who would be interested in buying such a set. I assume you often get such requests, or in lieu of that maybe you could put me in touch with someone who could supply such information.

Francis L. Miksa
613 Spring Street
Aurora, Illinois

TRUTH INSTEAD OF FICTION

Dear Sir:

Your magazine is excellent as for the stories but doggone it, your articles are fiction instead of articles.

The only article, or feature, as you call them, is "The Clubhouse."

I sincerely hope in the future your features are features not fiction.

Immediate Comfort
And Relief for You with

RUPTURE-EASER

(A PAPER BRACE PRODUCT)
for MEN, WOMEN and CHILDREN



A strong, form fitting washable support designed to give you relief and comfort. Adjustable back-lacing and adjustable leg straps. Snaps up in front. Soft flat groin pad—NO STEEL OR LEATHER BANDS. Unexcelled for comfort, INVISIBLE UNDER LIGHT CLOTHING. Washable. Also used as after operation support.

• THE MOST EFFECTIVE HERNIA SUPPORT.

Thousands of people who have tried old-fashioned, expensive devices turn to Rupture-Easer for new comfort.

• RUPTURE-EASER IS SANITARY.

Can be washed without harm to fabric—you never offend when you wear Rupture-Easer.

• NO FITTING REQUIRED.

Just measure around the lowest part of the abdomen and specify right or left side or double.

What Satisfied Users Say —

R. C. of Corvallis, Oregon, Air Mailer: "Send me another Rupture-Easer so I will have one to change off with. It is enabling me to work at top speed at my press machine 8 hours a day."

M. S. of Anderson, Ind., thanks us and says: "It is one of the finest things I have ever worn and has made my life worth living. It has given me untold ease and comfort."

O. B. of Boston: "Send me another... I wish to say to everyone who suffers as I did, 'Oh what relief I have found from its help!'"

Blessed Relief Day and Night
You can sleep in it—you can work in it—you can bathe in it.

10-DAY TRIAL OFFER

Money Back guarantee if you don't get blessed relief!

Piper Brace Company, Dept. ZD-115

308 E. 12th St., Kansas City 6, Mo.

Please send my RUPTURE-EASER by return mail.

Right Side	<input type="checkbox"/> \$3.95	Measure around lowest part of
Left Side	<input type="checkbox"/> \$3.95	my abdomen
Double	<input type="checkbox"/> \$4.95	Is _____ INCHES.

We Prepay Postage Except on C.O.D.'s.
Enclosed is: Money Order Check for \$_____
 Send C.O.D.

Name.....

Address.....

City and State.....

RUSH THIS COUPON NOW!

Hoping this fault will be corrected, I remain a reader of an excellent magazine.
Jim Painter
Cheney, Washington

Readers are sharply divided into three groups on the subject of short articles in Amazing Stories, all of them made up of about the same number of readers. One group wants nothing but fact articles, the second wants them all to be fiction, while the third asks that we omit them entirely!
—ED.

A BRAND FROM THE BURNING

Dear Mr. Browne:

Today I resume an old precedent and celebrate a new one. I bought a copy of AMAZING STORIES for the first time in nearly two years, and I write to an editor.

I followed the magazine like a faithful hound for over twenty years. I was a kid when I discovered it and my weekly allowance was all of \$2.50. I gave up Saturday movies when necessary and that was something, for those were the days of Tom Mix, Jack Hoxie and Joe Bonomo and "The Swiss Family Robinson".

I was an early fanatic of science fiction and I remain so today. Month after month I followed the old masters along the star trails, downed countless villains with my trusty atom blaster and lost myself in numberless worlds of wonder.

Then something happened. Maybe I grew up and the stories didn't. I don't know.

Somehow the flavor began to leave. Still I hung on, hoping for better days. They didn't come. When Shaver came along, that was it. Every story seemed to take on a Shaver flavor (ugh!). The corn got too tall so I gave up. The stories were too childish, with no appeal to intelligence. Even an old fashioned space opera can be written to appeal to a mature mind. AMAZING STORIES was no longer a magazine of true science fiction. (Referring to the previous sentence I give you Doc Smith's classics, my first editions of which I would fight any man for).

I read the Editor's Page, the story contents and I bought the magazine, came home and started this letter.

I can't speak for any other reader but myself but here's what I'd like to see.

Less half nude females on the cover. The movie magazines can do a better job. A little more dignity, you're not selling cheesecake. Quality stories will sell themselves.

Later on maybe, trimmed edges, better paper. Quality in appearance as well as contents.

If it's to be science fiction, let it be just that. FANTASTIC ADVENTURES can take care of straight fantasy.

Stories by Robert Heinlein, Jack Williamson, A. E. Van Vogt, Nelson Bond, L. S. DeCamp, Theodore Sturgeon, Lester

DelRay, G. O. Smith, Murray Leinster, L. Ron Hubbard, and last but far from least, Howard Browne, whose "Warrior of the Dawn" sits side by side with Burroughs immortal Tarzan series. And brother, from me, that's a compliment.

Science fiction is at last coming into its own, bring AMAZING along with it please.

J. G. David
Box 205
Bishopville, S. C.

THEY ALWAYS COME BACK!

Dear Mr. Browne:

Frankly, a lack of anything else to read forced me to buy the April 1950 issue of AMAZING STORIES. For the past year or so, I have not been reading AS due to the poor quality of stories. In fact, I was so disgusted with it, that at one time I made the statement that I'd rather be caught dead than be found with a copy of AMAZING or FANTASTIC ADVENTURES in my possession.

However, now, Mr. Browne, I retract that statement. I was really amazed at the change both in appearance and story material in the pages of your April issue. You are to be congratulated on making such a fine impression. It's rather hard to pick out the best story, but I think my choice goes to the short at the end of the magazine, "Satellite Secret". This story was terse, and vivid. It was of the quality that makes one of your competitors so well-liked. Who is this Kris Neville? His story reads like those written by an old timer in the sf writing game.

My sincere congratulations on the fine showing, and I wish you the best of luck in the future. Out here in the Pacific, reading is about the only means of relaxation I have and I am going to be looking forward to future issues of AMAZING.

Charles Lee Riddle, PNI, USN Editor
Fleet All Weather Training Unit
% Fleet Post Office
San Francisco, California

Kris Neville is a comparative newcomer to sf writing. But we have no hesitancy at all in saying he has brought something fresh and valuable to the field, and before very long will rank with its leaders. —ED.

HE TOLD THEM SO!

Dear Mr. Browne:

For the past thirty years I have been a constant reader of fantastic fiction. AMAZING STORIES has been one of my favorites since its inception. Now, after a quarter of a century and more of surreptitiously hiding my magazine under my coat as I left a newsstand, and listening to gibes like this, "Do you read that trash? You know it's not true. Why don't you read good literature?" Now my favorites

have been accepted at court. My suspicion that I have been reading entertaining fiction is verified. The "slicks" have seen the light. I could have told them what was good all along. After all wasn't Jules Verne a best seller?

Kindest regards from an old friend.

George R. Surface
2508 W. Grace St.
Richmond 20, Va.

THE ADULT VIEWPOINT

Dear Mr. Browne:

Your recent editorial has hit the nail on the head, as the saying goes. As one adult reader of science fiction and fantasy, it has irked me no end to find that the majority of the stories in the S-F magazines have turned out to be hack, and more often than not I leave most of these stories unfinished and look for something better. Particularly annoying have been the stories of the third group as you drew such a true word illustration of same. The spaceship patrol theme has been worked to death. Along with it usually goes some rot about the galactic federation and its struggle against alien invaders from some remote corner of the universe.

It has been my simple observation that the better stories start the reader off in today's world and gradually lead him into events and adventures "out of this world". Most any story by the old masters, Merritt, Burroughs, Lovecraft, etc. will illustrate this point. And we don't seem to be getting many new writers to fill the shoes of the old timers. A few exceptions are worth noting. Rog Phillips is doing a nice job of writing at present, particularly his long novels for Century Pocket Books. I don't like Shaver at all. It appears he has some supporters, but they must be clairvoyant with him to understand all the rubbish he talks about.

One of the last of the "old timers", Edgar Rice Burroughs, is dead. Words cannot express the loss this brings to us as followers of his stories, heroes, and the type of fiction he helped create. The newspapers report that he left 15 unpublished novels. Will the public be given these stories, and if so, how? AMAZING published some of his stories a few years back. Do you want a stronger hint?

It is gratifying to note that you as the new editor of AS and FA are making changes in the policy. The magazines were juvenile in flavor. The teenagers of five and ten years ago are adults now, and the signs indicate the new readers we are getting are the younger and middle age adults. Let's have more stories that appeal to this group. Good luck in your search for writers of real talent and new ideas.

Charles W. Wolfe
Box 1109
Las Vegas, New Mexico

So far as we know, there are no unpub-

"Do You Want to Become a Hequaz Numerologist?"

Something That Will Command

BIG MONEY

At completion of your studies you are awarded a certificate. No one can use this system of NUMEROLOGY without the certificate.

ACT NOW

Enroll and become one of our successful graduates.

Write for full particulars. About the "Hequaz System of Numerology."

HEQUAZ CORRESPONDENCE SCHOOL OF NUMEROLOGY

268 North State St., Dept. H, Marion, Ohio

WANT TO BE A MERCHANT SEAMAN?

\$195

APP. AV.
MONTHLY
OR MORE
PLUS FOOD
OVERTIME
LOGGING

STARTING PAY
TRAVEL-ADVENTURE
CAREER AT SEA ON
AMERICAN SHIPS

NO EXPERIENCE REQUIRED. EX-SERVICEMEN MAY
QUALIFY FOR SHIP'S OFFICERS

For Information WRITE TODAY to:
MERCANTILE INFORMATION BUREAU

Baltimore 16, Md.

INVENTORS

If you believe that you have an invention, you should find out how to protect it. We are registered Patent Attorneys. Send for copy of "Patent Booklet" "How to Protect Your Invention," and an "Invention Record" form. No obligation. They are yours for the asking.

MORROW, BERMAN & DAVIDSON
Registered Patent Attorneys

186 F Street Building, Washington 2, D. C.

Free Book

MOUNT BIRDS, ANIMALS, FISH

You, F.R.E.K., Explains Taxidermy. Tells how to learn it. Shows how to make your mounts. How to skin birds, mammals, fish, reptiles, insects, and fungi. Great for MEN and BOYS. For Also earn money in spare time. WRITE TODAY - NOW! - to: MORROW, BERMAN & DAVIDSON, 186 F Street, Washington 2, D. C. or: N.W. School of Taxidermy, Dept. 4311, Omaha, Neb.



lished manuscripts by the late Edgar Rice Burroughs.

—ED.

LOVE? HE'LL TAKE ROCKET SHIPS!

Dear Editor:

This issue of AMAZING STORIES is the best of a long line of wonderful issues. The cover is great, but I like space scenes. I'm building model space ships.

"Let's Do It My Way" is by far the best story in the magazine. It had everything—ray guns, and rocket ships included. I like space scenes with plenty of action, and rocket ships zooming around. Why don't you put things like that on your cover.

I don't like the mushy stuff you put in a lot of your stories. Who likes that love stuff anyway?

This is the first letter I've written to a magazine. I don't like to write letters but your magazine is so good that I just had to write and tell you how good it is. It's getting better and better all the time.

George A. Gibson
638 East Carpenter
Flint, Michigan

THE FAMILIAR MERMAID

Dear Mr. Browne:

I liked "Cosmic Cleanup", "The Man With Common Sense", and "The Eyes Are Watching" in that order. You can have the rest.

I am wondering if I haven't read "Make Mine A Mermaid" before. Either that or I am beginning to become a writer myself as I could have told the climax almost verbatim after having read two pages.

I am sure that one of my fellow fans can help me out in this, as I am almost positive that I have read it somewhere before.

Please excuse the brevity, but one has to have something to say before one can say it.

Henry E. Tyler
Box 2081
Fairbanks, Alaska

As we remember it, "Make Mine A Mermaid" followed a pretty well-worn theme in the fantasy field. That may account for Reader Tyler's familiarity with it. Which follows along with what we've been saying in recent months about the need for NEW trails for sf and fantasy to follow.

—ED.

FACTS OF THE FUTURE



By LYNN STANDISH



THE ULTIMATE SOLVENT

SOMEONE near the wall switched out the light. The laboratory darkened and a dozen pairs of eyes centered on the man standing near the weird apparatus on the bench. There was a pungent odor in the odor—but not the usual laboratory stench.

The technician spoke quietly, his voice extraordinarily calm—as if undercharged with excitement, the intellectual excitement that comes with great discoveries.

"...the jet of fluorine, elemental fluorine, directly on this piece of wood," he was saying. "Now watch!"

From the orifice of the thin flexible tube a yellowish gas issued, barely discernible in the darkened laboratory. It struck the board laying on the bench. There was a puff of flame and spontaneously the wood broke into fire and

light! The chemist turned a valve and shut off the stream. With sand he extinguished the burning wood.

"Let's see what it does to water!" He played another stream of hellish virulent fluorine against the surface of a water-filled beaker. A violet-yellow gently singing flame stood above the water as the potent element tore the water into its component hydrogen and oxygen!

"Gentlemen," the chemist said quietly, a little smile of triumph on his face, "mark my words. You're going to see and hear a lot of this stuff. Fluorine is here to stay!"

And he was so right. For from the laboratory fluorine formerly a plaything, dangerous and fearful, is emerging into a full blown industrial agent, capable of transforming, in more than a modest way, a host of processes as well as ways of living.

Henri Moissan the French chemist of artificial diamond fame first released the elemental form of fluorine, and found it to be a yellowish gas of dreadful power. After several near-tragic explosions he gave up working with it and the element remained a closely cloistered member of the halogen family showing little promise, unlike its brothers iodine, chlorine and

GOLDEN BOOK

Read the unusual story

LEGION OF TERROR

8 Pages—send 10c in coin to Dept. C.
ZIFF-DAVIS Publishing Company
185 N. Wabash Ave., Chicago 1, Illinois

bromine who later came to full stature. But the Second World War came and with it, the atomic bomb. The diffusion process for the separation of uranium called for large quantities of a gas as bad as its mother, uranium hexafluoride. Study and work with this monster showed the technicians how to tame fluorine as well as produce it electrolytically in quantity.

At first it seemed of moderate importance. Then chemists all over discovered that its tremendous corrosive properties, its ability to combine with anything, its astounding success in replacing hydrogen from many compounds, was a sure-fire bet for providing a large number of extremely useful compounds. For fluorine compounds are tough. Freon gas of refrigerator fame, fluorinated lubricating oils, fluorinated paints, fluorinated turbine oils—all of these things will soon become common.

As an example, oil, ordinary lubricating oil can be rebuilt about the fluorine molecule but what comes out is a miracle. Eventually these oils will be sealed into car motors, gear boxes, and turbines, to remain there for the life of the machine. They do not deteriorate!

Insecticides of enormous virulence, pharmaceuticals of great effect, industrial chemicals of extreme usefulness, are some of the things which are beginning to be felt in the newly burgeoning industry. Automobile and marine paints and finishes which simply cannot be worn out are on their way to the market. And the list has just been scratched.

Fluorine is a war-born baby whose arrival may be compared with such little known entities as magnesium and titanium. Both of the latter are catering to increasing industrial appetites. How do these things concern us or the future, you ask? The answer is simple: look around at anything, your car, your refrigerator, your television set—they had a beginning once, too!

★ ★ ★

NUCLEAR UNCERTAINTY

ATTITUDES toward atomic power may be divided into two classes. There is one school which says: "Atomic energy is just around the corner. In a little while even your cars will run off the atom." There is another school, cold and sober which says: "Atomic power is a long, long way off. We won't see it used for anything but warfare in our lifetimes." Which is right? Are the Enthusiasts more correct than the Prophets of gloom, or vice versa?

Like all controversial questions of this nature, both are right and both are wrong. Atomic energy is a many-faceted problem, the answers to which do not admit of the simple yes or no conclusion. The gloomy side of the picture is this. While tremendous advances have been made in handling the atom, and while electric energy from atomic pile powered steam generating plants is a certainty

FACTS OF THE FUTURE

WHAT ALL AUTO MECHANICS WANT TO KNOW

1800 PAGES



This Big Practical Book gives full information with working diagrams covering the principles, construction, ignition, service and repair of modern cars, trucks and buses.

Diesel Engines, Hydramatic & Fluid Drives Fully Explained.
A complete Guide of 1800 pages, with over 1500 illustrations showing inside views of working parts, with instructions for service jobs.

IT PAYS TO KNOW

How to fit pistons—How to locate engine knock—How to fit connecting rod bearings—How to recondition valves—How to time valves—How to adjust fan belts—How to adjust carburetors and chokes, How to rebuild a clutch—How to service automatic transmissions—How to service brakes—How to adjust steering gear—How to cope with ignition troubles—How to service distributors—How to time ignition—How to "tune up" an engine.

\$4 COMPLETE + PAY \$1 A MO.
TO GET THIS ASSISTANCE FOR YOURSELF SIMPLY MAIL IN AND MAIL COUPON TODAY.



AUDEL, Publishers, 49 West 23rd St., New York 10, N. Y.
Mail AUDEL'S AUTO MECHANICS GUIDE \$4: for free examination, if O. K., I will send you \$1 in 7 days; then remit \$1 monthly until \$4 is paid. Otherwise, I will return book promptly.

Name _____

Address _____

Occupation _____

Employed by _____

ZIP _____

Free for Asthma

If you suffer with attacks of Asthma and choke and gasp for breath, if restful sleep is difficult because of the struggle to breathe, don't fail to send at once to the Frontier Asthma Company for a FREE trial of the FRONTIER ASTHMA MEDICINE, a preparation for temporary symptomatic relief of paroxysms of Bronchial Asthma. No matter where you live or whether you have faith in any medicine under the sun, send today for this free trial. It will cost you nothing.

FRONTIER ASTHMA CO. 758-D FRONTIER BLDG.
462 NIAGARA ST., BUFFALO 1, N. Y.



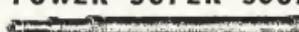
DO YOU WANT TO STOP TOBACCO?

Banish the craving for tobacco as thousands have with Tabaco Reducer. Write for free booklet telling of injurious effect of tobacco and of a treatment which has relieved many men.

In Business Since 1909
300,000 Satisfied Customers
THE NEWELL COMPANY
284 Clayton Sta., St. Louis 5, Mo.

FREE
BOOK

30 POWER SUPER SCOPES!



A SCIENTIFIC INSTRUMENT

Extends to 30 inches. Precision and Polished Lens. Ideal for Skygazing, Sports, Hunting, Shooting, etc. Satisfaction Guaranteed or Money Refunded. Send Check or Money Order to:

CRITERION CO., Dept. D-22
438 Asylum St., Hartford 2, Conn.

\$2.95
Post
paid

BOOKLETS. The kind you want like. Each one of these booklets is POCKET SIZE, also contains 8 ILLUSTRATIONS, and is full of fun and entertainment. 12 of these 30-page booklets, ALL DIFFERENT, shipped prepaid upon receipt of \$1.00, on 24 BOOKLETS. ALL DIFFERENT, shipped prepaid for \$2, cash or money order. No orders sent C.O.D. Print name and address and mail to:
Treasure Novelty Co., Dept. 36-N, 2 Allen St., New York 2, N. Y.

BALD?

"THE TRUTH ABOUT BALDNESS," a booklet, connects the facts. Authoritative; Scientific. You cannot fail to recognize the truth. Remain in doubt no longer, \$1.00 postpaid.

ZORBAS

Cleveland, Ohio

Box 2206-Z

HOLLYWOOD Model of the Month

A beautiful Hollywood Model is selected each month . . . and portrayed in 5 glamorous color poses. Send for "Miss November" Now! Set of 5 Color Slides \$2.00 Set of 5 Fine Grain Negatives 1.00

Address all orders to

JAMES J. BRADFORD

1302 Broadway

Burbank, Calif.

Relief for

EPILEPSY SPELLS?

Helpful information is available on the control of Epilepsy spells gained through our 25 years experience. Write for particulars.

THE VERNON COMPANY, DEPT. ZD-9
6956 Wentworth Ave., Chicago 21, Ill.

BOOKS—Latest Jack Woodford books, \$2.00 each; New Webster Dictionaries, \$1.00 to \$6.00; Used fiction books, 4 for \$1.00, SPP-CIFY PREFERENCE. Cash or money order only. Orders prepaid. Any other special orders promptly handled. Used pocket books, 10 for \$1.00.

DOODSON'S BOOK STORE FRESNO, CALIFORNIA

2410 TULARE STREET

CLASSIFIED ADVERTISING

Song Poems

SONG Poems wanted. Percentage basis collaboration. Terry Tune Master, 709 N. Broadway, Oklahoma City 2, Okla.

Miscellaneous

MAGAZINES (back dated), foreign, domestic, art, Books, booklets, subscriptions, etc. Catalog 10c (refunded). Cleerone's Center, 88-22 Northern Blvd., Jackson Heights, N. Y.

SCIENTIFICATION weird, fantastic: books, magazines. Werewolf Bookshop, 1508A Riverside Dr., Verona, Pa.

SURVIVIVE Package, 40 tricks and professional catalogue 50c. Vanishing coin 25c. Plastic jump up Rabbit in hat with name engraved 25c. Magic 2a, 716-Z Pine, St. Louis, Missouri.

NEWEST money making sensation. Sell personal Initiated belts, buckles, ties and breast badges, the initiators, etc. Catalog 2000 embossed. Write Special outfit offer today. Hook-Fast, Inc., 1425ED, Providence, R. I.

FREE outfit, write today! Sell embroidered Advertising Uniforms and Work Clothes, Initial Buckles, Belts, Badges, 2000 Embroidered. Hook-Fast Co., Box 480ZD, Ronkonkoma, N.Y.

"INTERESTING" Mails—25c will keep your mail box full three months. Bentz, Jr., Dept. B/80, Chatavia, Miss.

FANTASTIC Fiction! Sample, \$1.00. Catalog, 10c (refunded). Sample, Luemburg 21, Mass.

FREE Illustrated book "505 Odd Successful Businesses." Work home, \$250 week reported. Expect something Odd! Pacific, Ocean-side, Calif.

ANALYZE Handwriting! Diagrammed Instructions, 25c. Flury Graphology Service, Box 7RD, Dailey, Pa.

"THRILLING, sappy, Cuban-Mexican art" pictures, books, miscellaneous; samples, lists, \$1.00, \$2.00. Jordansart, Box 1265-C, Boston, Mass.

EXPORT-IMPORT offers trained men unlimited big paying job opportunities, own business, independence, etc. Free book. Write International Trade, 246-Z Fifth, New York 1, N.Y.

GLAMOUR Girls. Postcard size, strictly amateur, posed in silk blouse, high heels, etc. 1¢ for \$1.00. Wineholz, Woodlawn 82, Pa.

WANTING to buy 500,000 articles direct from manufacturers. Save by buying direct. Send free. "Your Profits Under the Spotlight." Glass Pub. Co., Ellwood City 23, Pa.

within a short time, the general use of atomic energy on a lavish scale is going to await the development of less lethal forms of it. The present difficulty in disposing of atomic "wastes", of "atomic ashes" is far from nearing completion. The harnessing of massive atomic piles to conventional energy generators is no easy task.

But there is a rosier, positive side too. This attitude depends upon the hope that free researchers will discover—and it is likely too—a whole new sphere in radioactive materials and atomic reactions, whose basic natures may be perfectly and easily controlled, and which will not throw off the vast amounts of dangerous radiations which are the present curse of the field.

This is not as difficult to imagine as it might seem. Remember that the pioneers in any new field always have trouble at first. That's the way it is with nucleonic engineering. But it won't always be that way. Maybe tomorrow won't produce an acceptable safe source of atomic power. But what about the day after?—or the day after that?

There is strong hope too that some genius or some combination of industrial power will come up with the direct conversion about which we've spoken before. Since atomic energy is a nuclear atomic phenomenon, and since each atom is surrounded with many electrons, why is it not possible that the electrons be tapped directly as a source of electric energy, usable and controllable? The answer is that there appears to be no reason why this shouldn't be theoretically possible.

So, summing it up, we may expect eventual, common, useful atomic power. Until then, we'll sit tight and hope that the men who handle the stuff don't convert the planet into a Nova...



THE BALKY BIG-EYE

THE MAGNIFICENT two hundred inch telescope at Mount Palomar is not only the world's greatest optical instrument, but it is also the world's—astronomical, that is—biggest headache. Ever since men have built big telescopes and poured optical genius into them, they've learned to expect trouble. Difficulties were once encountered with the hundred incher and it was years before that was tamed. But the two hundred inch job has had more bugs in it than a farmer's eyes. Everytime the observers turn around they've got troubles—big ones and little ones.

The constructional problems were bad enough, but for the last few years during which the 'scope has been undergoing tests preparatory to full-scale operation, one defect after another has shown up—to be conquered, of course—but never the less, to cause lots of aggravation.

Naturally the problems aren't simple. You don't push sixteen feet of massive Pyrex around.

One of the most recent attempts to correct the distortion the mirror is subject to due to heat and cold and mechanical support, involves a series of electric fans playing upon the back-ribbed structure of the ponderous mirrors. Because the glass is so huge and massive and because its cools and heats so slowly, expansion within it is not uniform. The optical system goes mad, and something has to be done. The observatory dome can't be kept air-conditioned and at constant temperature because it must present an opening to the sky. Therefore the cooling and heating effects throw the 'scope completely haywire. The answers to these troubles are coming slowly, but it will be a matter of several years yet before the instrument is producing the marvelous results expected of it.

Time and skill heal all wounds—even in massive slabs of glass!



EASY DOES IT...

"THE PUSH-BUTTON age is a long way off," I said in a half-amused tone to Professor Graybar as we sat together over our coffee cups between classes. "I got a charge from an authentic add I saw the other day. It was by a manufacturer of automatic calculating machines and it said, '...our machines are so simple, any B.S. in mathematics can learn to operate one...!'"

Professor Graybar waved his hand airily, and laughed.

"Don't let that bother you," he said. "That's usually the way it is with a novelty."

"What do you mean a 'novelty'?" I asked. "Calculating machines are old stuff."

"No, No, I don't mean novel in the sense of newness, rather in the sense of application. Here, let me give you an example. Look at the first radio equipment, television equipment or the early automobiles. You had to be a technician to operate them. But look at them now. Anybody can manipulate their simplified controls. That's the way it always is with new gadgetry. It's just a matter of time."

"Well," I conceded, "you've got something there. I hadn't thought of it in that way."

"Consider something quite close to us," he went on. "Girls in offices use today computing and billing machines whose complexities could drive an electronics or telephone engineer off his rocker. But so what? They needn't know anything about the insides, for the controls have been simplified to sheer child's play. You know that."

"The same is true for the gadgets and machines of the future. I don't care how complicated they become. They'll be de-

FACTS OF THE FUTURE

DRUNKENNESS

DO YOU WANT RELIEF?

Drunkenness rules Health, Happiness, BREAK THE DRINKING CYCLE QUICKLY. Use ALCOREM, the unique liquid that helps to promote average health. Unlike toxic, intoxicating drinks, Not classed as a permanent "cure," but it is a recognized method of withdrawal of alcohol. Interrupts drinking cycle and causes many to turn from drink. Price \$1.00 per bottle. SECRET: A few drops of this wonderful ALCOREM stimulates desire for more

alcohol. GUARANTEED Pure and Effective. Average treatment recommended by Medical Authority. ALCOREM comes ready to use—simple instructions. NO DRUGS TO READ—need not cause excessive time out from work or social duties. One happy ALCOREM user writes: "PLEASE SEND ME MORE WONDERFUL ALCOREM AT ONCE FOR A FRIEND WHO IS A BAD DRINKER. I BOUGHT FROM YOU BEFORE AND HAD WONDERFUL RESULTS." As an additional help we send...

FREE! 21 PINKIES with order of ALCOREM Special Formula capsules to help nervous and digestive system also. **FREE WEIGHT CHART.** Act as guide in building reformed drinker to proper weight.

SEND NO MONEY—ORDER NOW

SATISFACTION OR YOUR MONEY REFUNDED. Send name and address. We send ALCOREM, FREE PINKIES and FREE Weight Chart. Mailed in plain wrapper. Pay postman only \$4.95 and small C.O.D. charge. To save C.O.D. charge send \$4.95 WITH ORDER.

**MIDWEST HEALTH AIDS • DEPT. P-10
608 SO. DEARBORN STREET • CHICAGO 5, ILL.**

LEARN AT HOME

TO BE A PRACTICAL NURSE

You can learn practical nursing at home in spare time. Course endorsed by physician. Thousands of graduates.

HIGH SCHOOL NOT REQUIRED

5½ year. One graduate has charge of 10-bed hospital. Another saved \$400 while learning. Equipment supplied. Monthly payment, 13 to 69. Easy tuition payments. Trial plan.

CHICAGO SCHOOL OF NURSING

Dept. 3811, 41 East Pearson Street, Chicago 11, Ill.

Please send free booklet and 16 sample lesson pages.

Name _____
City _____ State _____ Age _____

BINOCULARS

MADE IN GERMANY

Precision ground lenses and mirror focusing. Low exact eye adjustment. Large field of view. Objectives, 8 miles range. Strongly built. Weight 16 oz. Extra wide field of view. Satisfaction guaranteed or money refunded. Send check or money order.....

\$3.95

CRITERION CO., Dept. DB-5 Patent
Hartford 3, Conn.

Learn Profitable Profession in 90 days at Home

Men and Women, 18 to 50

Many Swedish Massage graduates make big money. Large full time incomes from doctors, hospitals, sanatoriums, clubs or private practice. Others make good money in spare time. Prepare for good money in spare time. Now! The College of Swedish Massage, Dept. 65P. 41 E. Pearson, Chicago 11

Photo Developing & Printing 8 Exposure Roll...40c

Enlarging—8x10 print.....40c
Photo Copies, Camera Supplies, Camera Repairs

Jay's Photo Service

500 S. Eastland Ave., Los Angeles 22, Calif.

ILLUSTRATED COMIC BOOKLETS

Sell our ILLUSTRATED COMIC BOOKLETS and other NOVELTIES. Each booklet size 4½ x 2½. We will send 25 assorted booklets prepaid upon receipt of \$1.00 or 75 assorted booklets sent prepaid upon receipt of \$2.00. Individual price list sent with order only. No orders sent C.O.D. Send Cash in advance order. Repas Sales Co., 1 Orchard St., Dept. 48-M, New York 27, N.Y.

A Shocking Note!

BALLET in the BOUDOIR

It happened down Bevona way,
A lassman snarled by one day,
As I was dancing a ballet
In just my—well—that's nice.
Of course, I really did protest
About myself; I wasn't dressed,
But now it's done—and I've
confessed.
The picture really is my best!
P.S. If you don't see it—what a
shame.
For LANA (me)—has quite a frame!

COLOR SLIDES
GLAMOROUS STILLS
HOME MOVIES—
8 & 16mm

SEND 25¢ — for sample slide and
still of LANA, the gorgeous star of
"Shocking."

Send now for 200 feet reel!
8 mm..... \$3.55 postpaid 100'
35 mm..... 4.95 (silent) pp. 200'
36 mm..... 6.95 (sound) pp. 200'



La Madelon Pix, Suite 1200

7284 Sunset Blvd., Hollywood 46, Calif.

Please send Shocking in [16mm....] [16mm sound....].
I enclose \$..... [cash, check, or m.o.] I understand that I may
return the film within 5 days of receipt and my money will be refunded
— and we'll still be friends.

... I enclose 25¢ for sample color slide and still of LANA.

name _____

address _____

city _____

zone _____ state _____

ILLUSTRATED BOOKLETS & NOVELTIES

Our VEST POCKET series of ILLUSTRATED COMIC BOOKLETS are full of humor with ILLUSTRATIONS. The NOVELTIES are in the same MANNER as for EXCITEMENT AND AMUSEMENT. 10 DIFFERENT booklets and 6 DIFFERENT novelties sent prepaid on receipt of \$1.00. No C.O.D. orders or checks accepted. WHOLESALE PRICE LIST included with orders only.

LIVE WIRE NOVELTY CO., Dept. 8-N
3 Orchard Street
New York 2, N.Y.

QUIT TOBACCO!

Remove all tobacco craving safe in every form and join the thousands who have obtained satisfactory freedom from tobacco with TOBACCO BANISHER. Send for FREE BOOKLET describing the ill effects of tobacco and our safe reliable home treatment, a proven success for 30 years.

GUSTAF H. GUSTAFSON CO.
2226 E. Vickery Blvd. Dept. FG
Ft. Worth 3, Texas

NERVOUS STOMACH

ALLIMIN relieves distressing symptoms of "nervous stomach"—liveliness after meals, belching, bloating and colic due to gas. ALLIMIN has been scientifically tested by doctors and found highly effective. Druggists have sold more than a $\frac{1}{4}$ billion to date. Money-back guarantee. At all drug stores.

ALLIMIN Garlic Tablets

COMIC BOOKLETS

Kind you like well illustrated with rare cartoons. Send only \$1.00 cash, stamp, or money order for 12 of these large size booklets prepaid. Sent in plain wrapper sealed. Agents wanted. List with order.

WINEHOLT CO.

CB 29

Weedline, Penna.

signed around the capabilities of the average man. Mark my words on that score. In fact, there are groups of engineers right now whose function is to design equipment—any kind of equipment—in terms of control by humans. In other words they are tailoring the machines to the men and not vice versa! Knobs and buttons and handwheels and levers are constructed so as to best fit the human hand and arm position and sense of grasp. In addition these engineers evolve types of scales and dials which can be read most easily. You'd be surprised at what a difference there is between a well-designed dial and a poorly done one even though both are equally good from a recording and quality standpoint."

"I'll admit there are angles there I hadn't considered," I agreed. "I like the idea of fitting the man to the mechanism."

"It had to come," Professor Graybar said. "The pilot of a jet or rocket ship, as common examples, must react with incredible accuracy, and celerity. Reading the wrong dial by accident, being two-tenths of a second slow in turning a control handle or pushing a button—presto! no pilot! The engineers have gotten their hands in this sort of thing. And from critical operations like this, the art of making machines for men has branched into a lot of fields."

"I'll make a mental note of this," I said as I arose, "next time I get in the car. I hope they make the future helicopters easy to handle!"

THE CLUB HOUSE

(Concluded From Page 153)

and authors, as well as the fellows who will buy that color tv for ten bucks down and eight ninety-five a month, that three way car that travels on land, on sea, and in the air, that chrome plated spacecar guaranteed for fifty million miles for six months, whichever comes first, and perhaps that first man to reach the headlines by having the leg of a dead man grafted on successfully, with nerve grafts that make him able to control it. Not to mention a few who will have artificial hearts under their ribs before the century is over.

Meanwhile some of those guys and gals are having a lot of fun publishing these amateur magazines, and writing stories and articles to fill them. I think ALL of you should subscribe to at least one of these fanzines, not only for the refreshing fun you'll get in reading it, but also to help underwrite the efforts and development of these fans. Send a dollar to one of these fan editors to get his magazine and to help him continue publishing it in his basement after school or after work.

Will you do that?

—ROG PHILLIPS

PRINTED IN THE U. S. A.



Ruthless vengeance — hate — love and raw passion . . . these emotions ruled the men and women who braved the open ranges of the great American West.

You'll join in the action—thrill to the danger—smell the gun-smoke and share the glory of the outriders who helped mold a mighty nation with sweat and blood and hot lead . . . Read, every month

MAMMOTH WESTERN

All Stories Complete — by Leading Writers
TOPS IN WESTERN FICTION
ON SALE AT YOUR NEWSSTAND NOW!



KNOWLEDGE
THAT HAS
ENDURED WITH THE
PYRAMIDS

A SECRET METHOD FOR THE MASTERY OF LIFE

WHENCE came the knowledge that built the Pyramids and the mighty Temples of the Pharaohs? Civilization began in the Nile Valley centuries ago. Where did its first builders acquire their astounding wisdom that started man on his upward climb? Beginning with naught they overcame nature's forces and gave the world its first sciences and arts. Did their knowledge come from a race now submerged beneath the sea, or were they touched with Infinite inspiration? From what concealed source came the wisdom that produced such characters as Amenhotep IV, Leonardo da Vinci, Isaac Newton, and a host of others?

Today it is known that they discovered and learned to interpret certain *Secret Methods* for the development of their inner power of mind. They learned to command the inner forces within their own beings, and to master life. This secret art of living has been preserved and handed down throughout the ages. Today it is extended to those who dare to use its profound principles to meet and solve the problems of life in these complex times.

This Sealed Book—FREE

Has life brought you that personal satisfaction, the sense of achievement and happiness that you desire? If not, it is your duty to yourself to learn about this rational method of applying natural laws for the mastery of life. To the thoughtful person it is obvious that everyone cannot be entrusted with an intimate knowledge of the mysteries of life, for everyone is not capable of properly using it. But if you are one of those possessed of a true desire to forge ahead and wish to make use of the subtle influences of life, the Rosicrucians (not a religious organization) will send you A Sealed Book of explanation without obligation. This Sealed Book tells how you, in the privacy of your own home, without interference with your personal affairs or manner of living, may receive these secret teachings. Not weird or strange practices, but a rational application of the basic laws of life. Use the coupon, and obtain your complimentary copy.

The ROSICRUCIANS

SAN JOSE

(AMORC)

CALIFORNIA



AMENHOTEP IV
Founder of Egypt's
Mystery Schools

Use this
coupon for
FREE
copy of book

SCRIBE W. K. R.
The Rosicrucians (AMORC)
San Jose, California

Please send free copy of Sealed Book
which I shall read as directed.

NAME.....

ADDRESS.....

CITY.....